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ORIGINAL COMMUNICATIONS.

Clinical Notes from Private Practice. By GEORGE L. UPSHUR,
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(Concluded from October number.)

Fever after Child-birth.—Case 1. Mrs. S., before mentioned ; did perfectly well until May 3d. During the night before, she had some soreness of the limbs, and thirst, which prevented her from sleeping as well as usual. She attributed this to a sudden change in the weather, by which she became chilled. At my morning visit, I found her lying with the feet drawn up, languid, thirsty and restless, with general aching of the limbs, and considerable tenderness of the abdomen upon pressure, and upon any motion of the lower extremities. The pulse was rather feebler than the day before, but not more frequent than natural. The bowels well moved twice on the 2d, by two Pil. Cathart. Comp. Prescribed hot fomentations to the abdomen, to be followed by sinapisms and hops wrung out of hot water. She took internally a tablespoonful of this mixture :

R—Sp. Æther. Sulph. c.	f. ʒi.
Tr. Opii Camph.	
Tr. Lav. c.	aa f. ʒii.
Aquæ Camph.	f. ʒiiss. M.

I was summoned to see her again at 10 o'clock, two hours after my first visit. Found her just getting over a severe rigor, with increased thirst, headache; pulse small, compressible, 120; and intense pain over the whole abdomen, which was greatly increased by the slightest pressure, or by the least motion of the lower extremities, *especially rotation of the thighs*. Prescription—continue hops and mustard. A tablespoonful every two hours of the following:

R—Potass. Nitr.	3i.	
Morph. Sulph.	gr. ss.	
Aquæ	f. 3iv.	M.

Afternoon.—Patient feels more comfortable; less pain upon pressure; profuse perspiration; pulse 104, soft; no headache; anorexia; restless; continue treatment.

May 4th. Morning.—Entire absence of fever; much less pain; can turn from side to side without much inconvenience; appetite. At the afternoon visit I found my patient rapidly convalescing.

CASE 2.—Mrs. B., a delicate lady, æt. 25, was delivered of her third child on the 1st of May, after a labor of fifteen hours. The expulsion of the placenta was followed by considerable hemorrhage, sufficient to pale the cheek and induce a feeling of faintness. The next day, 2d, she imprudently walked across the room to a sofa, in order to have her bed arranged; and returned to bed without being greatly fatigued. May 4th, after being awake all the previous night with the child, she was seized with chill, followed by high fever; pulse 130, small and feeble; and intense pain radiating from the hypogastrium over the whole abdomen, which was greatly increased by pressure, motion, deep inspiration or cough. There was also *suppression of the lochia*, with thirst, nausea, hot, but moist skin, and decubitus upon the back, with the thighs well flexed upon the abdomen. Prescribed nitrate of potash and morphia, and mustard and hops, as in Mrs. S.'s case. In the afternoon the pain was less, but no abatement in the febrile action.

May 5th. Less fever and less pain; did not sleep well last night. Prescription: R. Quiniæ Sulph. gr. xvi; Pulv. Opii gr. v; Pulv. Ipecac. gr. iv. M.; Pil. viii. S. one pill every two hours; ice in moderate quantities; continue the topical applications. At the

afternoon visit, the patient had taken four pills, and was decidedly better. Continue treatment.

May 6th. Found Mrs. B. free from fever, and nearly free from soreness. Rested well last night; lochia abundant. Discontinued medicine; she recovered rapidly.

Case 3.—On the 2d of May, Mary, colored, æt. 22, the mother of three children, miscarried at the sixth month. She lost a good deal of blood two days before the expulsion of the fœtus, but not enough seriously to impair her strength. On the 4th, two days after the abortion, she was seized in a manner similar to Mrs. S., though less violently, and was treated in the same way. At the expiration of 36 hours she was free from fever and pain, and has not had an unpleasant symptom since.

Remarks.—The three cases just detailed, presented all of the prominent symptoms of puerperal peritonitis; rigors, followed by high fever; intense pain in the abdomen; inability to rotate the lower extremities; dorsal decubitus, with the thighs well flexed; thirst and rapid pulse. Gordon, Lee, Hey, Armstrong, and our own Dr. Meigs, who have written the best articles upon this important disease, all mention these symptoms as pathognomonic of the affection. Meigs is so explicit upon the subject as to say—“For many years past, I have, perhaps, never called upon one of my accouchées, within four or five days after delivery, without asking her to show me whether she could draw up her knees without pain. If she can do so, I am always content”—and by implication, if she cannot, he is not content. In all of my cases, the patient could not rest with the feet extended, and the slightest contraction of the psoas and iliacus muscles was productive of great pain. But after all, were these cases of puerperal peritonitis? I think not. They recovered too rapidly under a treatment comparatively mild. Either the active antiphlogistic treatment recommended by Meigs and others, is unnecessary in puerperal fever, or these were not cases of that disease. But if the symptoms in every case were such as are pronounced in puerperal fever, how is it possible to make a correct diagnosis in such cases? Had I studied the cases reported by Gordon, Hey, &c., as carefully before I saw the cases herein reported, as I have since studied

them, I should have pursued a different treatment, and, I doubt not, in case 2, at least, with a different result.

There are no morbid conditions so similar in their symptoms, and yet so widely different in their real nature, as *irritation* and *inflammation*. The first accomplishes no good purpose in the economy, but wastes its energy and impairs its power of resistance; the last has for its object the reparation of an injury, or the elimination of some noxious agent, which would destroy the harmonious play of the human machine. In the language of Boerhaave, it is the "*vis vitæ conans evertere mortem*;" and though often unsuccessful, and sometimes, in its zeal, the destroyer of that which it would preserve, its *aim* is invariably to do good. It is true, that irritation is sometimes of so high a grade as to bring it nearly within the bounds of true inflammatory action; while on the other hand, there are forms of inflammation which exhibit that want of balance between the great nervous centres, which renders it near akin to irritation; but generally the line of demarkation is sufficiently distinct.

It is extremely important to make a correct diagnosis; for irritation does not bear the evacuant treatment, while inflammation calls loudly for it. If a physician is called to a case of severe headache, accompanied by double vision, tinnitus aurium, flushed face, &c., and without further inquiry, proceeds to bleed the patient freely, he would be astonished to find syncope supervene after the loss of a few ounces, and all the symptoms increased in severity; but if he should be informed that, a few hours before, the patient had lost a large amount of blood from the uterine vessels, he would at once see that he had to deal with what are termed *hemorrhagic* symptoms, and would pursue an opposite treatment, no matter how pointedly these symptoms seemed to indicate an *inflammatory* condition of the brain.

The symptoms in my cases I attributed to irritation, the result of hemorrhage, fatigue and loss of sleep, and therefore adopted the soothing, tonic treatment, instead of the antiphlogistic. I believe if Mrs. B., case 2, had been bled and purged freely, she would have died.

Ptyalism accompanied by Acute Dysentery.—On the 30th of May, Mr. M., a confirmed dyspeptic, applied to me for relief from

a serious diarrhœa, from which he had been suffering for a day or two. I gave him the following prescription: *R.* Calomel gr. vi., Capsici gr. xii., Camph gr. x., Opii gr. iii., Ol. Menthæ gtt. vi. M. Pil. 6. S. One pill every two hours. He took four of the pills, and being relieved, discontinued them. On the 1st of June he was profusely salivated, but walking about, and free from fever. Was called to see him on the 3d. Found him feverish, nauseated, and with loose bowels, the dejections being liquid and accompanied by considerable pain. *R.* Tr. Camph., Tr. Opii aa ʒij., Ol Menthæ gtt. x. M. S. Forty drops every hour until relieved. He sent for me in the night; was suffering from tenesmus; pulse full, hard, and bounding; frequent vomiting; pain upon pressure along the course of the colon: bowels moved every ten minutes, and the discharges very bloody. Took *twenty-nine* ounces of blood from the arm, by measurement; ordered 12 Spanish leeches to the abdomen. *R.* Acid. Nitrosi ʒi., Tr. Opii. gtt. xl., Aquæ Camph. f.ʒvii. M. S. One-fourth of this mixture every four hours. Visited him in eight hours; leeches took ten ounces of blood; all the symptoms were improved; nausea gone; discharges scarcely tinged with blood; pulse soft and compressible; pain nearly disappeared. The patient recovered rapidly.

I have several times this year seen dysentery while the system was under the mercurial influence. In such cases Hope's nitrous acid mixture will be found invaluable; and, indeed, I believe it will be acknowledged to be the best remedy in any case of acute dysentery. For the past seven years, I have prescribed it in this disease to the exclusion of almost every other remedy, and have scarcely ever been disappointed in it. The failures with it, are due, I believe, to its being given in too small doses.

Case of Cholera at Cape May. Reported by FRANCIS WEST, M. D., Philadelphia.

The following case of cholera maligna fell under the care of the writer at Cape May, during the bathing season in August last. The number of visitors there at the time was about 1000.

The occurrence of isolated or single cases of this disease, in localities of more than ordinary salubrity, and the non-extension of it under these circumstances to other individuals, would seem to

be *matters of fact*, of considerable interest and importance in their bearing upon the etiology and mode of propagation of this remarkable disease. There is no disorder, perhaps, which, in regard to these two points, has more perfectly illustrated the opposite experience of medical men, gathered under apparently precisely similar circumstances, than the epidemic in question; the history of its rise and progress, at one time and in some particular place, appearing directly to contradict, in many points, the accounts which are given of it on other occasions and in different situations.

M. S., a robust and perfectly healthy Irish girl, aged about 23 years, had visited the Island as a domestic in the family of Mr. M—— of this city. When they left Philadelphia, the cholera was quite on the decline, if, indeed, it had not almost entirely disappeared as an epidemic. It was not until exactly one week after her arrival at Cape May, that she was seized with the attack of cholera which in a few hours terminated her life. As far as I could learn, she had been troubled with diarrhœa only a day or two previously, but during this period, as well as throughout her whole stay upon the Island, she had been indulging very freely in all kinds of rich food, besides vegetables and fruits, to which she had not before been accustomed. At noon on the day of her attack, she had taken her bath as usual in the sea, along with her mistress, and had made no complaint whatever of indisposition; her dinner too was taken as usual. About five o'clock in the afternoon, I was requested by Mr. M——, quite incidentally, during a visit paid to the house where the family were staying, "to look at his servant girl, who did not appear to be very well, and had just gone to lie down." I found that she had had some diarrhœa and vomiting, for which a few doses of "cholera mixture," brought from the city, had been given to her, but her condition had not awakened the slightest solicitude in the family. Upon examination of the patient, I was immediately struck with the extreme feebleness and smallness of her pulse, which seemed to be inexplicable by the amount of diarrhœa and vomiting. There was no opportunity at this time of observing the character of the discharges. Her skin was cool, and her tongue also did not present the usual warmth. There was *something*, however, about her, which, taken in connexion with the state of her pulse, skin,

and tongue, made me fear that the attack was not one of ordinary cholera morbus, and on parting with Mr. M——, I said to him, “if this girl was in Philadelphia, or under the influence of the cholera poison, I should say that she had the disease.” I prescribed some camphor mixture, composed of Aq. Camphoræ \bar{z} ijj. Spir. Lavand. comp. \bar{z} j. Spir. Ammoniae Aromat. \bar{z} ij. Tinct. Opil. f. \bar{z} ss., together with a large sinapism over the abdomen, and a hot mustard pediluvium. In the course of an hour I repeated my visit, having left her with serious misgivings in regard to the nature of the case. During my absence she had had no repetition of the diarrhoea, and had only once vomited. Upon my return, however, I found no improvement of the pulse, but, on the contrary, a further diminution of its size and strength, with marked increase of the superficial coolness, and, added to all this, a sensible sinking of the eyes, whispering voice, shrivelling of the fingers, commencing blueness of the limbs, face and body, cramps in the extremities, &c.; in a word, all the symptoms of incipient collapse. My worst fears being now confirmed, I at once requested, and as quickly obtained, the valuable counsel of Professor Darrach, of this city, who happened to be staying in the same house. He agreed with me in the opinion that it was a decided case of cholera maligna in its worst form, and suggested that we should give a fair trial to the practice of exhibiting calomel in grain doses every five minutes, with ten drops of laudanum in a teaspoonful of brandy. These were accordingly given, and at the same time sinapisms were freely applied to various portions of the body. Within a short time afterwards, the pulse seemed to rally a little, but no other improvement was manifested; on the contrary, all the symptoms soon became aggravated; immense dejections of real rice-water fluid occurred about 10 o'clock, P. M., and continued, at short intervals, with the effect of rapidly exhausting the system. At about 12 o'clock, P. M., the state of collapse was perfect, and she soon sank into a moribund condition, during all which time her mind remained perfectly clear. She died about 5 o'clock, A. M., on the following morning. Dr. D. and myself remained with her from the time when we first met until 2 o'clock the next morning. Several persons besides the family were present, and assisted us with their kind offices. Her body was removed on the following day to this city for interment. I remained

for some time after her death, but no other case of the disease made its appearance, either in the house where she died, or at any other point upon the island.

This case of course presents no features of special interest, except in regard to the two points referred to in the early part of this communication. The entire absence of any previous or subsequent cases of the disease upon the island, would seem to prove, beyond question, that this solitary case was not contracted there, and if so, that the "*semina morbi*" had remained latent in the patient's system during the entire week which had elapsed between the time of her departure from Philadelphia and that of her arrival at Cape May; their full development not having been susceptible of control, even by the salubrious atmosphere of the sea-shore. This fact goes to prove, further, that the cases of cholera which have occasionally shown themselves on ship-board at different periods after the departure of the vessel from an infected place, may really have been contracted on shore, thus doing away the necessity, presumed to exist from their deferred appearance, of supposing that the vessel had struck at sea upon a vein of cholera atmosphere. The opinion of the *directly* contagious character of cholera would also seem to be entirely disproved, by the non-extension of the disease among the individuals in attendance upon this patient. Such a case, indeed, as it appears to us, is, of all others, best calculated to afford satisfactory proof upon this particular point. Had the condition of the patient been such as to favor *infection* in others who were about her, it is more than probable that the disease would have spread there, as elsewhere, under the influence of similar agencies.

On the Injection of Stimulants into the Veins. By J. M. STEINER, M. D., Assistant Surgeon U. S. Army. (Communicated in a letter to one of the Editors.

With the permission and assistance of Lieutenant Fowler Hamilton, 2d Dragoons commanding this Post, I instituted a series of experiments upon four public horses, condemned to be shot, with the view of discovering what symptoms would result from the injection of stimulants into the general circulation.

Aug. 21.—1st. A large horse, affected with an eruptive disease of

the skin, termed farcy, was secured, and an incision made into the right external jugular vein. By means of a syringe, one drachm of pure alcohol was thrown into the vessel, and its effects carefully noted. In the course of a minute the eyelids became half closed, and the animal appeared as if under the influence of a narcotic. The same quantity of alcohol was injected at intervals of two minutes, until the whole amounted to six drachms. The pulse increased in strength and frequency, and an abundant perspiration exuded in large drops upon the right hip and thigh.

2d. This horse was affected with the Spanish fever. Three drachms of alcohol were injected into the jugular vein, without producing any other effect than a slight acceleration of the pulse. Five minutes after, one and a half drachms of sulphuric ether were thrown into the same orifice, but without giving rise to any additional symptoms.

3d. A horse with the farcy. Two ounces and a half of alcohol undiluted, were injected into the jugular vein. I passed the tips of my fingers along the course of the vein as far as the base of the neck, and could distinctly hear the gurgling of the *air* which was thrown into the vessel along with the alcohol.* In less than half a minute, the animal trembled violently, staggered and fell; regained his feet and fell again. Upon applying the hand, the heart could be felt throbbing violently against the chest, and its pulsations distinctly heard without placing the ear in contact with the surface. He laid quiet for five minutes, and from the appearance of his eyes, and the notice he took of the hand, when waved before them, seemed perfectly sensible. At the expiration of the time mentioned, he was whipped to his feet, and went to grazing.

4th. This horse was stifled. Two ounces of aqua ammoniæ, diluted with an equal quantity of water, were injected into the jugular. In fifteen seconds the upper lip and nostrils became vio-

* In this case the instantaneous effects usually resulting from the injection of air were not produced. Some animals may receive enormous quantities of air into the veins without causing death. Magendie relates that on one occasion he introduced with a syringe, with his whole strength, and as rapidly as possible, from twenty to twenty-four pints into the veins of an old horse, without causing immediate death, though he ultimately sank. After death the whole circulatory system was found filled with air, and even the lymphatic system was distended with yellowish lymph, slightly mixed with air.

lently convulsed, when, staggering forward, he fell upon his knees, but instantly regained his feet. For a few moments he looked frightened and astonished, and then went to cropping the grass.

I have since (August 23d) repeated the experiments upon three of the same horses. Three ounces of aqua ammoniæ, diluted with water, were injected into the jugular of the first, four ounces of the oil of turpentine, undiluted, into that of the second,* and eight ounces of whiskey into that of the 3d. At the expiration of a minute, the first horse fell and was thrown into convulsions, lasting for a half a minute. In the course of five minutes he was whipped to his feet, and moved off with great difficulty. The horse that had received the turpentine, did not fall, but reeled and staggered for ten minutes, and for several hours after walked as if blind and drunk. The third horse experimented upon with the whiskey, remained firm and stood upon his feet, without any untoward symptoms supervening. In the three instances, an abundant perspiration broke out over the whole body before the expiration of fifteen minutes.

It is the opinion of some physiologists, that alcohol, or any other substance in its "active state,"† cannot be injected into the circulation of man without producing instantaneous death. Some aver, that as soon as the stimulant reaches the heart, that organ becomes paralysed. Such is the inference, I have been informed, deduced from experiments made upon some of the lower animals. The fairness of such an inference seems to admit of some question, and when we consider the vital importance of this subject, a too ready credence should not be yielded to conclusions not based upon actual and carefully repeated experiments. Why is it that alcohol, when injected into the circulation at sufficient distance from the heart, to become mixed with and diffused through the blood, should have the effect of paralysing that organ, while that absorbed from the stomach is followed by no such result? Can it be, that the contents of the stomach essentially modify the qualities of the alcohol, or can it meet with any change in passing through the liver beyond that described by Magendie, who believes that the passage of foreign fluids into the animal economy,

* The horse that received the turpentine, died of hæmaturia on the 25th.

† Chapman's Elements of Therapeutics, p. 47.

through the innumerable small vessels of the liver, has the effect of mixing them more intimately with the blood, and, as it were, diluting them with a large quantity of the fluid, so that their chemical nature becomes somewhat altered? Or, what is more probable, do not the instantaneously fatal results of the infusion, depend rather upon the incautious and rapid manner in which such substances are injected? If fifteen grains of bile be forced suddenly into the crural vein of a dog, death will result in a few moments; but if it be *slowly* injected, it does not produce any sensible injury. Magendie's own experiments, as detailed by himself, and those of Blundell and Lepelletier, as described by Dunglison,* as well as the frequent saline injections in cholera, prove that the fatal results follow, not so much from the presence of the foreign substance in the blood, as from the incautious mode of proceeding.

If the hypothesis of those who maintain this *doctrine of paralysis* be true, some such change as that above mentioned must take place; and if so, it would prove both instructive and interesting, at least to some of us in the army, to know in what it consists. Had it not been for the prevalence of this hypothesis, I am inclined to believe, that numbers of the wounded in the late war with Mexico might have been saved by the injection of stimulants into the circulation, at a point as far as practicable from its center. The major part of the wounded struck by round shot and shell, died without the surgeon being able to bring about reaction. Large quantities of stimulants, brandy, ether, ammonia, &c., were freely administered, but after remaining in the stomach a few minutes, were thrown up, and when retained, were not absorbed. In these cases, could the stimulants have been injected into the circulation, *reaction* might frequently have resulted, and many lives in consequence perhaps have been preserved.

Fort Graham, Texas, Aug., 1849.

* Human Physiology, Vol. I. p. 621.

Epilepsy from pressure upon the Brain. (Clinic of Jefferson Medical College.) Reported by MR. JAMES A. MEIGS, Student of Medicine.

A case of considerable importance in surgery, was presented by Professor Pancoast to the class of Jefferson Medical College, on Saturday, January 13th, 1849.

The patient, a lad aged 14 years, had, about nine years previous, received a severe blow upon the sinciput, just over the left orbital ridge, by being precipitated from a cart upon a pile of stones. He was taken up insensible, but under judicious treatment recovered, and was to all appearance perfectly well. Some time after, when the circumstance was almost forgotten, the patient was suddenly seized with epileptic fits, a disease with which, prior to the accident, he had never been troubled. These untoward symptoms gradually increased in frequency and violence, until it was not uncommon for them to recur ten and even twenty times *per diem*.

Coincidentally with this epileptiform condition, a slow but progressive decay of his mental faculties became evident, till it was finally feared a total alienation of his mind might supervene. As indicative of this, his features were impressed with the peculiar fatuous expression of confirmed epileptics, while his whole conduct evinced a moody and abstracted state of mind.

These abnormal symptoms had, thus far, been steadily increasing in magnitude and violence, despite the various and well directed remedies employed, when the patient was placed under the charge of Professor Pancoast, who, after a careful investigation, both of the history of the case and the condition of the lad, became convinced that the evil resulted from the pressure of a portion of the vitreous table of the os frontis, upon the anterior lobe of the left cerebral hemisphere. This projection of the bone he thought had been undoubtedly established at the time the accident occurred, but had not manifested itself by its alarming results—the child being then very young—until the brain became considerably developed.

Here then was an extremely delicate point for the formation of a diagnosis, and the establishment of the consequent treatment. The question forcibly presented itself, whether to operate or not.

If the meninges of the brain were inflamed, or the orbital plate broken, it was obvious that no benefit would accrue, and the patient be needlessly subjected to a painful operation. Again, if the frontal sinuses existed to any extent, the danger was manifest of forming an aerial fistula, which would be extremely difficult, if not impossible, to cure.

Notwithstanding these manifold obstacles, the operation was resolved upon, inasmuch as it seemed to give the lad the only chance for his recovery.

His father assenting, the lad was brought before the class on the 17th of January. He was placed upon a table in the clinical room, and as a return of his paroxysms during the operation was feared, he was held firmly down by several assistants. A sort of triangular opening was made, the flaps of which being turned back, the pericranium was exposed. This was divided, and the branches of the supra-orbital and frontal arteries, the hemorrhage from which was considerable, were taken up. The trephine was now applied immediately above the superciliary ridge, and as near the depression as possible. Extreme caution was necessary at this point of the operation, this being a difficult and dangerous place for the application of the trephine. In this case the danger was increased by the incessant struggling and resistance on the part of the patient. A circular piece of the skull was removed, having upon its inner face a spiculum of bone pressing upon the dura mater, thus triumphantly verifying the diagnosis. The dura mater was perfectly healthy, presenting its usual opaque pearly hue.

The edges of the periosteum being brought together, and the flaps laid down and supported by a compress of wetted lint, lightly held in its place by adhesive strips, the patient was transferred to one of the clinical wards of the institution. Here he remained during the ensuing month, under the attendance of Drs. Rand and Horner.

For some time after the operation, it was frequently noticed as a fact worthy of consideration, that any attempts to approximate the lips of the aperture closely, and thereby dispose them to heal at once, were speedily followed by a return of the epileptic paroxysms, which were as readily dissipated by the immediate removal of the approximating force. The same disagreeable results were also found to be induced by the slightest indulgence in any highly nutritious or stimulating aliment.

In addition, therefore, to cold applications to the head, absence of light, and the scrupulous avoidance of all anodyne preparations, which were resorted to immediately after the operation, the lad was kept upon a spare diet, and the aperture allowed to remain open for nearly a month. The judicious nature of this treatment was soon made manifest, by the happy restoration of the lad to mental and physical health.

The scar necessarily left by the operation is scarcely perceptible, while the aperture is filled up with a cartilaginous deposit, as is evident from the resistance offered upon pressure.

The lad is now (August, 1849) employed by his mother to run errands, and attend occasionally to a little store which she keeps in this city. In his daily conduct he evinces an intelligence and physical strength usual to lads of his age and condition in life.

History of the Epidemic of Cholera at the Philadelphia Almshouse, Blockley, in the Summer of 1849. By MORETON STILLÉ, M. D., and EDWARD R. MAYER, M. D., late Medical Superintendants of the Cholera Hospital in that Institution.

The undersigned have prepared the following short history of the late epidemic, with the desire of contributing as far as they are able to the stock of facts now accumulating, relative to the Asiatic Cholera. The account which we have to offer is, in many respects, imperfect; the disease having prevailed already to a great extent, before we came upon duty. We have been furnished with a history of the cases which occurred before the opening of the cholera hospital, and will refer to them in a general view of the extent and mortality of the epidemic; but further than this we are not able, nor do we feel at liberty, to make use of them. We will, therefore, confine our observations to the cases which were registered upon the books of the cholera hospital, and which came directly under our charge. These books are, indeed, defective in some points, owing to the constant occupation of the medical attendants in the early part of the season. We believe, however, that the few omissions which exist, have been so far supplied by our own recollection of individual cases, as not materially to affect the value of the general result. The situation and general plan of the Almshouse are known to almost every one in this community. For the information of others, we would

state, that the buildings, with an external measurement of probably 900 by 700 feet,) bound an extensive quadrangle, open at the four corners, and are situated upon rising ground on the right bank of the Schuylkill river. The large area enclosed by them is divided by high walls into several smaller courts, and in its centre is situated a two-storied stone building, the ground floor of which is open and is used as a wash-house. The four rooms on the second story were opened as a cholera hospital early in the month of July. This building was selected for the purpose, because it was equidistant from opposite parts of the quadrangle. It was considered that the objections to its appropriation for this use, arising from its position in an enclosed court yard, would not outweigh the advantages derived from the convenience of the situation in other respects. In consequence of the high rate of mortality which continued to prevail, the Medical Board, consisting of Drs. Benedict, Page, Clymer, and one of ourselves, recommended the erection of a temporary hospital on the Almshouse ground, outside of the enclosure. This measure was approved by the Board of Guardians, and directions were given for the construction of two frame buildings, of suitable size, for hospitals, with the necessary offices. The new buildings were, however, not ready for the reception of patients until the 23d of July, before which time the epidemic had already begun to decline; and, indeed, after the occupation of these buildings by the cholera patients, although the elevated site upon which they stood was incontestably salubrious, the previous high mortality of the disease continued unaffected. The removal of *all* the inmates of the institution into a temporary camp outside of the walls, was suggested to, and maturely considered by, the Board of Guardians, aided by the advice of some of the most eminent physicians of the city: the project was, however, deemed to be not advisable, in view of the number and character of the population of the house, and the advanced period of the epidemic. Indeed, had such a removal been practicable, within four weeks from the time of its suggestion, (which is altogether improbable,) the certain injury to the occupants of the hospitals, to the old, blind and infirm women and men, the incurables, lunatics and idiots would, we think, have swelled the list of deaths above the point to which the mortality from cholera raised it, and that too, with a very doubtful prospect of staying the ravages of the epidemic. This plan was therefore rejected, and the

attention of the Medical Board and of the Board of Guardians, directed to the execution of those sanitary regulations which seemed most advisable. Barrels of pitch were burned within the enclosure, to create an upward current of air; fires were kindled in the wards, and the windows thrown open, in order thoroughly to ventilate the house; the courts were well cleansed, and the vicinity of the privies and the opening of the sewers, liberally covered with slacked lime. The Medical Board moreover suggested, that such persons as were physically able to leave the Almshouse should be allowed to depart, and be induced to do so by the offer of a weekly stipend for their maintenance elsewhere. Owing to the adoption and execution of this measure, a large number left the house. It was further recommended, that woollen under clothing should be freely distributed, the diet scale improved, and all those living upon the charity of the institution daily inspected by the resident physicians, in order that the disease might be checked in its incipient stages. These measures were not, however, carried out to the extent desired by the Board. That last mentioned was certainly no easy task, as the medical superintendent of the house was suffering from repeated attacks of illness, and the number of resident physicians on duty was reduced by sickness and absence, to five.

The care of all the cholera patients was, at the outbreak of the epidemic, and for several days afterwards, undertaken by the usual medical officers, but owing to the rapid spread of the disease, their duties became entirely too laborious, and upon the 7th day of July a separate cholera service was instituted, over which we were, in turn, appointed to preside. We received, during our attendance, the most valuable assistance from a number of gentlemen, graduates and students of medicine. With a devotion rendered the more praiseworthy from the fact of many of them being far from their homes and friends, they cheerfully offered their gratuitous assistance, and ministered with untiring assiduity to all the wants of the sick and dying.* The

*The following are the names of the gentlemen referred to: Mr. T. M. Flint, of Philadelphia, J. Warren White, Mississippi; David P. Heap, Tunis, Africa; Ptolemy S. Harris and Charles Heerman, Louisiana; Theophilus Field and Benjamin H. Walker, Virginia; George M. Darrach, Pa. The following having previously been on duty, were appointed the Assistant Resident Physicians of the new cholera hospital: Drs. Arthur M. Lynah, U. S. N.; Robt. C. Black, Ga.; Thomas S. Mills, Va.; John D. McCall, Lima, S. A.

health of some became materially prejudiced by the prevailing epidemic influence ; the lives of two were seriously threatened by the disease, while two others, Mr. Flint, of Philadelphia and Mr. White, of Mississippi, died in the city of cholera, a few days after they had been obliged, by ill-health, to give up their duties at the Hospital. The services which fell to the lot of ourselves and our medical assistants were, in consequence of the want of good nurses, numerous and trying.

The absence in Europe, of Dr. Clymer, the consulting physician of the Almshouse, renders it not improper that we should here make mention of his active and efficient co-operation in all our measures, and his zealous perseverance in them under the most disheartening circumstances, as well as acknowledge the benefits of his medical experience and research.

The nurses of the Cholera Hospital were for some time entirely taken from among the paupers, who were not only wholly incompetent, but moreover indolent and ill-disposed, and deserted us often at the most critical moment. Their place was afterwards supplied by hired men from the city.

Another serious annoyance was the necessary employment, during the early part of the epidemic, of the paupers, as carriers of the sick. The cases occurring in the Almshouse were sent for, as soon as they were reported, but owing to the supineness and delay upon the part of the carriers, several hours often elapsed before the patients were brought to us for treatment. It will be easily understood, that to this cause, may be very justly attributed a part of the unfavorable issue of the cases which came under our charge.

The epidemic commenced in the Almshouse on the 29th of July. Previous to this, four cases had been brought in from the city. Two of them were received on the 25th and 26th of July, and had been placed in the Women's Medical Ward, and the other two in the men's hospital. The first case that occurred in the institution was in the Women's Medical Ward, into which the cases from the city had been brought. The first case on the men's side was in the Men's Surgical Ward. We are unable to ascertain whether the cases from the city had been placed in this or in the medical ward above it. However, the disease seemed to spread from these two points, not step by step, but rapidly, to all other parts of the establishment. Without wishing to prejudge

the question of the contagious nature of cholera, we would merely state, that such of the pauper population of the house as are physically able, are employed in all menial services, as far as they can be made useful in this way, and that they help to nurse the sick and carry messages from one part of the building to another. We were not able to trace any connexion between the prevalence of the cholera and the condition of the atmosphere. The barometer maintained a high average, the heat was by no means as great as it often is in our summer, and the direction of the wind and character of the weather presented no constant feature. The want of dependence of the cholera upon a paucity of electricity in the atmosphere, is shown by the fact that there were several thunderstorms during the epidemic, and that after a remarkably violent thundergust on the 14th of July, the number of cases *increased* daily for some time. A meteorological table appended to this article may be further consulted in reference to this subject.

The lunatic wards suffered more than any other. They furnished nearly one-third of the whole number of patients, and the disease, as it occurred in them, was peculiarly intractable. We are unable to assign any more plausible cause for the liability of the inmates of these wards to the disease, than the fact that nearly all were labouring under the more depressing forms of insanity, as melancholy, imbecility, or idiocy; their mental and moral sources of resistance were gone, while physically they were in the most unfavourable condition, as very few of them enjoyed the liberty of exercise in the open air, and their diet consisted almost exclusively of soup and vegetables, and was, consequently, far from being nutritious. A fact may be mentioned as affording some support to these views, viz., that of twenty lunatics employed by the gardener as assistants not one was attacked by the disease. On the other hand, their wards are roomy, scrupulously clean, and well ventilated. The "Lodge" in which the more violent patients are kept, is about fifty yards distant from the main building, and *entirely outside of the enclosure*, and although it is said to be somewhat damp, is clean, and has the benefit of a thorough draft of air. Yet in this building the cholera raged with peculiar severity, as fully one-half of its inmates were carried off by it. The wards of the hospital, and the infirmaries for the old and blind and incurable supplied two-fifths of the

whole number of cases. The influence of other diseases or infirmities in predisposing to cholera, may be judged of from the fact that the "out-wards," containing the least feeble inmates of the Almshouse, furnished a far less number of patients in proportion to their population, than any other parts of the institution.

Thus it will be seen that two-thirds of all the persons treated in the cholera hospitals, came from wards, a residence in which alone implied circumstances predisposing to the disease and unfavourable to the power of resisting it. Previous sickness or imbecility, old age, intemperance and other vices, had already rendered them easy victims. Out of the whole number of persons whose age was recorded, viz., 161, nearly one-half were over fifty years of age, and three-fourths over forty. Many of the old people were habitual opium eaters, and all, invalids either from natural causes, or from actual disease or vice. The inmates of the medical and surgical wards were, of course, easily carried off by the disease, as they were already suffering from maladies mostly of a serious nature. In view of facts like these, we do not think it possible to institute any just comparison between the mortality of the epidemic in the Almshouse, and that of other places or institutions not similarly situated.

Besides these sources of the mortality, which our tables exhibit, a most prominent one is the fact, that from various causes, including the delays before referred to, the majority of patients were not placed under our care until they were already in the collapsed state. Fully nine-tenths of the patients transferred to us from the Almshouse, were in this condition. The only persons we had the good fortune to treat, from the commencement of their illness, were two of our medical assistants, two nurses, and another patient coming accidentally under our care. These all had well-marked symptoms of cholera, and recovered under prompt and active treatment. The other nurses of the cholera hospital whom we treated, neglected to report themselves until they were no longer able to attend to their duty, and the disease had advanced quite beyond the reach of medicine. Including the above, about twenty persons were under our treatment in the hospital before they had entered the perfectly collapsed state. These all had cramp, and vomiting, and purging of the characteristic liquids, and with the exception of one or two, were very strongly marked cases. Nearly all of these recovered perfectly.

The number of deaths among the convalescent patients was increased by the want of competent nurses in the female convalescent ward, and the imprudence of the patients themselves. In regard to the most important circumstances connected with cholera, peculiarities in its character and the comparative success of different plans of treatment, we are forced to own that we have but little to relate. We have reason to believe, without certainly knowing it to be the case, that the attack was in nearly all instances, ushered in by the usual diarrhœa. The patients were, however, generally presented to our notice at a period when the rice water liquids had ceased to be discharged externally to any amount.

The cyanosed hue, the cold and shrivelled skin, the irritable stomach, the whispering voice, muscular debility and mental apathy, the more prominent symptoms of the true collapse, were nearly always present upon their admission into the wards. In probably less than one-third of the cases were rice water evacuations either common or abundant, and cramps were still less frequently met with. In the medical management of the sick our best directed efforts proved constantly ineffectual, owing partly to the feeble vitality of the greater number, but chiefly, without any doubt, to the late period at which they were subjected to treatment. A fair trial was given to every remedy and every plan of treatment which had substantial experience in its favor, but we were constantly disappointed in our hopes, by finding many which had been the most highly vaunted, fail entirely in our hands. In the cases in which venesection could be practised, it was tried, but without success. Previous to the state of collapse, more benefit was derived from the administration of opium and acetate of lead, conjoined with sinapisms, laudanum enemata, and carefully regulated internal stimulation, than from any other treatment. Calomel in large doses, combined with opium, succeeded well in a few cases. When given in the manner proposed by Mr. Ayre, no good result was obtained. Quinine, in both large and small doses, astringent injections, ice frictions, warm and saline baths, venous injections and other popular means were frequently and fully made use of, but usually with little effect. Chloroform was not found to produce any more beneficial effect than that, in conjunction with other means, it generally relieved the vomiting and cramps when they existed, and enabled the patients to pass through their short term of life more comfortably than they would otherwise

have done. A plan of treatment frequently employed in the cases of collapse, was the administration of a solution of camphor in chloroform, with the addition of kreasote, oil of turpentine and laudanum, conjoined with frictions of Lee's ointment modified,* and the use of the hot iron applied upon the spine over flannel previously moistened with Petit's embrocation of ammonia and turpentine. By these means patients were frequently roused from a state of collapse, again and again, and were then placed on the use of calomel and other remedies, but the restoration was nearly always but temporary, and the patient again relapsed into the condition which precedes death. Indeed, this mode of treatment was so often efficacious in bringing on speedy reaction, that we had every reason to believe that its use at an earlier period of the disease would have been eminently successful. But, under the circumstances which existed, we are called upon to record its almost constant failure, along with that of every other kind of practice used.

The tables which follow require some previous explanation. We have no positive information of any cases of cholera occurring in the Almshouse, except those registered upon our books. Besides these, we have a list of cases occurring before the opening of the Cholera Hospital on the 7th of July, which came under the care of the usual medical officers of the Almshouse. We have therefore divided the whole number of cases into two series, the first comprising those which occurred before the 7th of July; the second including those which were admitted into the Cholera Hospital until its closure, on the 4th of August. If reference be made to the bulletins of the Board of Health, considerable discrepancy will be found between the daily and weekly reports of cholera in the Almshouse, and between either of them and our own: we have endeavored, but in vain, to reconcile these varying results. We will vouch for the correctness of our own report, as far as it goes, and would remark at the same time, that we have entered upon our books several deaths which occurred in the convalescent ward, but which, through inadvertence, were not reported by us to the Board of Health. It is possible that other errors may have escaped our observation, but if it be

*R. Camphoræ, lbj.
Chloroform, f̄viiiij.
Misce et adde
Capsici, lbss.
Ung. hydrarg. lbj.

so, it is nevertheless certain that they can have no sensible influence on the general result.

Weekly Statement of the Population of the Almshouse during the Epidemic of Cholera.

June 30.	July 7.	July 14.	July 21.	July 28.	Aug. 4.
1738	1691	1546	1358	1313	1305

FIRST SERIES.

Cholera Cases occurring in the Almshouse before the 7th of July.

	Male.	Female.	Total.	Black.	White.	Total.
Cases, -	29	24	53	14	39	53
Deaths, -	24	21	45	12	33	45
Recoveries,	5	3	8 or 15.09 per ct.	2	6	8

Of these eight, two women died subsequently of adynamic fever, leaving

Males. Female.

Permanent recoveries, 5 1 6 or 11.32 per cent.

SECOND SERIES.

Cases admitted into the Cholera Hospital between July 7th and August 4th.

	Males.	Females.	Total.	Black.	White.	Total.
Cases, -	117	105	222	18	204	222
Deaths, -	99	84	183	16	167	183
Recoveries,	18	21	39	2	37	39
or 17.56 per cent.						

Of these 39, there died subsequently of diarrhœa, dysentery, dynamic fever or relapses, six men and three women, leaving

Males. Females.

Permanent recoveries, 30, 15 15 or 13.51 per ct.

Total number of Cholera cases recorded are—

	Males.	Females.	Total.	Black.	White.	Total.
Cases, -	146	129	275	32	243	275
Deaths, -	123	105	228	28	200	228
Recoveries,	23	24	47	4	43	47

Recovered from Cholera 47 or 17.09 per cent.

Died subsequently, 11

Permanently recovered, 36 or 13.09 per cent.

The *ages* of 161 patients in the Second Series are as follow; those of the First not having been recorded.

4 patients from 1 to 10 years.	26 patients from 60 to 70 years.
7 " " 10 to 20 "	17 " " 70 to 80 "
15 " " 20 to 30 "	7 " " 80 to 90 "
26 " " 30 to 40 "	3 " " 90 to 100 "
31 " " 40 to 50 "	1 patient over 100 years.
24 " " 50 to 60 "	

The wards or occupation of 247 patients, of both series, are as follow:

From the Lunatic Wards,	-	-	-	73
" Blind, Old, Infirm and Incurable,				54
" Medical and Surgical,	-	-	-	40
" Ulcer and Venereal,	-	-	-	4
" Nursery and Obstetrical,	-	-	-	7
" Out Wards,	-	-	-	41
" City,	-	-	-	5
" Children's Asylum,	-	-	-	4
" Receiving Ward and Gate,	-	-	-	4
" Kitchen and Shoemaker's Shop,	-	-	-	2
Nurses of Cholera Hospital,	-	-	-	6
Nurses of Cholera Convalescent Ward,	-	-	-	1
Other Nurses,	-	-	-	4
Physicians,	-	-	-	2
				<hr/> 247

The *place of birth* of 195 patients of the Second Series was recorded as follows:

	<i>White.</i>	<i>Black.</i>	
From the United States,	59	31	90
" Great Britain,	-	-	16
" Ireland,	-	-	65
" Germany,	-	-	21
" Holland,	-	-	1
" France,	-	-	1
" South America,	-	-	1
			<hr/> 195

State of the Thermometer, Barometer, Dew Point, Wind and Weather, as observed daily, at 9, A. M., at the Pennsylvania Hospital, from the 20th of June to the 5th of August.

Date.	Thermom.	Dew Point.	Barom.	Winds.	Weather.
June,					
20	81	63	30.23	SW. NW.	Clear.
21	87	64	30.21	NNE.	"
22	88	72	30.18	SW. NW.	"
23	88	67	30.05	NW.	"
24	80	55	29.98	NE. SW.	Variable, thunder storm.
25	79	65	29.87	NW.	Clear.
26	79	57	29.90	NNW.	"
27	77	54	30.01	NE. SW.	"
28	73	68	29.95	SW. S.	Variable.
29	71	67	29.80	NW.	"
30	75	67	29.95	SW.	Clear.
July,					
1	79	62	29.82	N.	Variable.
2	79	62	29.82	NE.	Clear.
3	67	49	30.20	NE.	"
4	67	53	30.28	E.	"
5	67	52	30.22	E.	Variable.
6	71	60	30.25	SW.	"
7	72	67	30.24	SW.	"
8	74	71	30.13	SE.	"
9	72	68	30.19	SE.	"
10	70	65	30.23	NE. E.	"
11	75	70	30.30	SE.	"
12	82	71	30.32	SW.	Clear.
13	88	70	30.22	NW.	"
14	88	70	30.00	NW.	Clear, thunder storm.
15	65	—	30.28	NNE.	Clear.
16	70	45	30.32	NE.	"
17	72	58	30.22	SW.	"
18	74	61	30.21	SW.	"
19	71	67	30.25	SE.	Fog, clear.
20	79	74	30.19	SW.	Variable, thunder storm.
21	77	73	29.87	SW.	" thunder.
22	75	60	30.00	N.	Clear.
23	74	63	30.18	NE.	"
24	73	63	30.33	NE.	"
25	69	62	30.28	E.	Variable.
26	79	74	30.08	SE.	"
27	76	65	30.14	SW.	Clear.
28	71	54	30.17	NE.	Variable.
29	73	57	30.13	NE.	Clear.
30	76	70	30.10	SW.	Cloudy, clear.
31	79	75	30.02	SE.	" "
Aug.					
1	68	56	30.15	NE.	Variable.
2	71	59	30.26	NW.	Clear.
3	72	61	30.24	SE.	"
4	73	60	30.14	SSW.	"
5	77	70	30.10	SW.	Variable.

Below is exhibited the mean temperature, &c., for the months of July, 1848, and 1849.

JULY, 1848.

Mean temperature,	-	-	-	-	74.82°.
“ at 9, A. M.	-	-	-	-	74.74°.
Maximum of Thermometer, (26th,)	-				91°.
Minimum “ (17th,)	-				59°.
Range “	-	-	-	-	32°.
Mean of diurnal variations,	-				13.25°.

JULY, 1849.

Mean temperature,	-	-	-	-	74.66°.
“ at 9, A. M.	-	-	-	-	74.18°.
Maximum of Thermometer, (13th,)	-				95°.
Minimum “ (4th,)	-				59°.
Range “	-	-	-	-	36°.
Mean of diurnal variations,	-				14.88°.

The Practice of Surgery: embracing Minor Surgery and the Application of Dressings, &c., &c., &c. By JOHN HASTINGS, M. D., U. S. N., Fellow of the College of Physicians of Philadelphia, Member of the Philadelphia Medical Society, Lecturer on Surgical Anatomy and Operative Surgery, &c., &c., &c. With numerous Illustrations. Philadelphia: Lindsay & Blakiston, 1850. 8vo. pp. 479.

This volume forms one of a series of books now in process of publication by Messrs. Lindsay & Blakiston. Three have been already issued from the press, embracing, respectively, Midwifery, the Elements of General Pathology, and the Diseases of Children. Of the character of these works we have formed an exceedingly favorable opinion, believing that they have been written with judgment, and with fidelity to what can reasonably be considered the truths of Medical Science, touching the branches of which they severally treat. They do not contain all the theories and opinions prevalent at the present day concerning these subjects; the character and intention of the publications would not have admitted of this. Their object was to present to medical students and to young practitioners of medicine, chiefly, a carefully prepared digest of the Principles and Practice of Medicine, as connected with the above mentioned departments, so far as principles and practice can be considered as well ascertained and trustworthy. This object has, we think, been well attained; and if the subsequent treatises be equally good, we think, further, that their authors, their readers, and the publishers will have reason to feel pleased and satisfied.

Writing, be it never so creditably accomplished, is a very thankless task, excepting to some few happy ones who, in addition to the ability to write, and sometimes without it, possess the "imprimatur" which high professional position affixes to their labors. Every thing which their pens may indite, is at once met, at more than half-way, with a welcome, and a conviction of its great worth; while it is generally assumed, on the other hand, that young men, who have not yet attained to the gown and the chair of the professorial dignity, or to the charge of hospitals, know nothing, and can communicate less, that is worth hearing or reading. These are prejudged to be guilty of ignorance, and are re-

quired to prove their innocence against "a great cloud of witnesses,"—cold friends, jealous rivals, scornful superiors, and censorious critics, who, like the horrible prowlers around a field of battle, grow rich by despoiling those whom they help to murder. Surrounded thus by natural difficulties, and by obstacles heaped in their path, they have an unequal contest to maintain: like Ajax amidst the darkness sent from heaven, and the hosts of Troy, they must fight no longer for glory, but for very life. We think that this is unfair and uncharitable. We honor youthful ambition and youthful valor, and bid them God-speed; if we must fight, we would rather oppose the "vieux moustaches."

The author of the volume, of which the title is prefixed to this article, is known to us as a zealous and successful student of anatomy, and to have had opportunities of gaining large experience, as a surgeon, in the naval and civil services. We propose, briefly, to examine the contribution which he has just made to "The Medical Practitioners' and Students' Library."

The author's object has been "not to confuse his readers with a laborious attempt to embrace each detail of fact and theory, but rather to point out only the most prominent and distinctive features of a very fertile subject. Under this restricted plan, he hopes that his treatise may serve as a *guide-book* to the *student* and *young practitioner of surgery*." The book is divided into five parts. The *first division* treats of Inflammation and its varieties; Suppuration and Abscess when localized in its most favorite regions; wounds and their effects, including Hydrophobia and Tetanus. The *second* describes the methods of performing the operations—the simple and the more important—which are practised upon the various regions and organs of the body. The *third* is devoted to the consideration of Fractures and Dislocations. The *fourth* discusses the injuries and surgical diseases to which the individual regions of the body are liable, apart from those embraced under the preceding divisions, and others treated of under the *fifth* and last, which are thus enumerated: "diseases of the Arteries, injuries and diseases of the Veins, injuries and diseases of the Nerves, Venereal disease, diseases of the Bones, malignant tumors of Bone, diseases and injuries of Joints, injuries and diseases of the Ear, injuries and diseases of the Eye." It will thus be perceived, that the author has discussed a vast number and variety

of topics; and it is a matter of astonishment to us that he has been able to treat satisfactorily of all, within such restricted limits.

At the very outset of his labors, Dr. Hastings must have been much perplexed to determine what plan he could adopt which would embrace all the subjects of which he was expected to treat, and by which he might secure simplicity, harmony and perspicuity of arrangement, and, at the same time, avoid repetition. We do not think of any one, at this moment, by which all these desiderata could be attained. It seems to us, however, that the arrangement which he has followed is faulty as regards convenience of reference, since in very many instances the mode of treatment recommended for diseases and injuries is to be sought for under another division of the book than that which describes these affections. Thus, Hernia, Fistula in ano, Phimosis, the presence of foreign bodies in the Larynx and Trachea, are treated of in various sections of the fourth division of the volume, while the operations necessary for their relief are discussed in the second. It would be better, we think, that the remedy should be more immediately associated with the description of the disease, and that the division devoted to operations should include only those generally associated with Minor Surgery, the ligature of Arteries, and Amputations. Again, the diseases of the Mammæ are described in two distinct sections of the fourth division, separated from each other by *ten* intervening chapters on different diseases and injuries; and, moreover, in each of these two sections the same diseases are, in several instances, spoken of.

Our limits will not permit us to review the manner in which the author has treated of all the subjects comprised in his volume; we must content ourselves with noticing a few of the more important.

Inflammation first occupies his attention, and to this subject twenty-four pages or more are devoted. He objects to what are usually considered "the terminations" of inflammation; and we think that the ground of his objection is a very just one—that the secondary *results* of this process are very generally confounded with its real *terminations*. We *infer* from the author's remarks, although he does not so state them with perfect distinctness, that he allows but *three* terminations of inflammation, viz., resolution, effusion, and mortification. We agree with the author in this

opinion; yet it seems to us that his reasoning on the subject is not very clear, and involves some contradictions and some errors. We desire, however, to speak with diffidence; for inflammation has always appeared to us a process difficult to be understood, partly from its complex character, and partly in consequence of the conflicting and contradictory statements of facts and conjectures concerning it. It is apparently easy to ascertain the causes which most frequently excite it, and to account for the most striking of its sensible phenomena; but its real nature is still a mystery. In attempting to unravel this, it seems to us that too much importance is attached to the operation of merely physical laws and conditions. Thus, the effusions which occur are generally ascribed to the effect of pressure, from the continuance of the heart's action, upon a more or less stagnant fluid which distends the capillaries and arteries of the inflamed part; the influence of modified vital action upon the coats of these vessels is rarely appealed to, yet such modified action must exist, and there is great reason to believe that this will more rationally account for the escape of the fluids usually effused in inflammation; (see Experiments by Sir John Leslie, quoted in a note to p. 802, vol. 5, of the *London Med. Gaz.* for 1847;) the arrest, retardation, or acceleration of the flow of the blood, and the dilatation or contraction of the vessels, seem to engage the whole attention.

We suppose that inflammation is always a salutary process in its object; we cannot in every case see this motive clearly, but generally it is, to furnish the materials for the restoration of lost tissue, as after a contused wound; or to prevent the extension of some destructive action, as of tubercular ulceration of the lung, and subsequent gangrene of the pleura; or to furnish a foreign substance, accidentally or otherwise lodged in the tissue, with an enveloping membrane which eventually becomes a part of the tissue, and thus removes from the intruding object its power to harm; or, finally, to extrude a foreign body. This last may furnish us with an illustration of the process of inflammation. A splinter becomes lodged in the finger; speedily the latent preservative powers with which the whole system and each part of it are endowed, are aroused by the irritation of this noxious agent; the first impression may be made upon the nerves of the part, but soon all the associated elements of the inflammatory process are

in operation, for the purpose of effecting the complete removal of the disturbing cause. This object is accomplished first by the effusion of fibrin around it; and secondly by the conversion of this fibrin into pus, the escape of the latter, and, with it, of the splinter. It may or may not be, as Dr. Hastings supposes, essential to constitute inflammation that "the circulation be entirely arrested in the disordered part," p. 36. We presume that this is not always the case, and that in most instances the circulation is "partly increased, partly diminished;" (Williams' Princip. Med.) but in all local inflammations, this condition is less important than the character of the effusion, and the changes which take place in it. The author's views seem to be confused and contradictory on these points: thus, he says, page 33, "there is now inflammation of the different tissues, and gradually approaching *death of the effused fibrin*," &c.; and again, at page 35, he says of the products of inflammation, that they "*all become foreign and effete bodies*," &c.; yet he acknowledges that fibrin is the material "to which the reparative operations of Nature are due," p. 31. How can a living tissue be made from a substance which is dead and fit only to be thrown off? The fibrin effused in healthy inflammation is not an effete matter, but a living substance, which either becomes incorporated with and assimilated to the tissue into which it has been extravasated, or undergoes certain other vital changes. In either event the purpose is a salutary one; in the first, the disturbing cause is thereby removed, and the preservation of the part is secured; by the last these objects are placed in process of gradual attainment: the illustration before commenced, will continue to explain this position. The splinter is surrounded by effused fibrin; but the former is an inert foreign body, incapable of withdrawing itself from the tissue, or of being removed by any force or action of its own; and the tendency of effused fibrin is to become organized, and to be a living part of the living tissue, not to leave this. Still the splinter must be thrown off. How? Simply through the influence of a vital change effected in the fibrin which enwraps it; the fibrin is converted into pus, of which the peculiar tendency is of itself to escape by external rejection. We cannot allow ourselves the space necessary to attempt an explanation of the *modus operandi* of this conversion of the plasma into pus, and the

escape of the latter; we will refer the reader to Vogel's *Pathological Anatomy*, as affording an exceedingly interesting and satisfactory dissertation on the subject, and also to the article on inflammation and its results, by the same author, in Wagner's *Physiology and Pathology*.

Dr. Hastings' opinions concerning the origin and character of pus,—that it “is probably nothing but dead red corpuscles and exudation corpuscles floating in an altered serum, which holds in solution other ingredients of the blood,” p. 34,—are, we think, untenable, if we may rely upon the examinations of careful microscopists, (see Vogel, Henle, &c. &c.) These views also lead him to assimilate suppuration with mortification, (see “Mortification,” p. 37.) We dissent also from the statements made with reference to the possibility of distinguishing the pus-corpuscle, under the microscope, p. 61: according to the evidence of Vogel and other reliable micrographers, the true pus-globule may always be recognized by its shape and size, as viewed with the microscope, and by the peculiarity of its nucleus which, when the globule is treated with acetic acid, is seen to be “generally composed of several minute granules forming a composite multiple nucleus.” Vogel, p. 132.

With the author's views concerning the *treatment* of inflammation, we have been well pleased. He suggests nothing novel, but he has the greater merit of stating clearly and with judgment those facts which are already known. We would particularize that the remarks on the local treatment, so far as the application of cold and warm dressings is involved, the circumstances which should prompt to the preference of one rather than of the other, and to the substitution of one for the other, are very judicious.

We pass to the chapter on the Operations. Those which are employed for the relief of Hernia, are among the most important, and are the only ones which we shall be able to notice. In the description of these, we are struck with the observation of many inaccuracies and vaguenesses of style and expression, which we attribute, of course, to inadvertence on the author's part; and yet they may give rise to confusion. We will mention some of these. In the definition of “Taxis,” the relaxation of the muscles is included, as well as the manual operation; in detailing the direction in which the taxis should be made to restore an oblique

inguinal hernia, it is stated that "the pressure must be applied upwards and *downwards* to force the protrusions into the canal," p. 88; this is really correct, as the patient is supposed to be lying on his back, and the pressure *should* be made in the direction upwards, with reference to his head, and downwards, with reference to the cavity of the abdomen; yet we think that upwards and *inwards*, or upwards and *backwards*, would be a more intelligible expression; continuing this subject,—the restoration of an oblique inguinal hernia,—the text says, the pressure "should then be obliquely outwards, upwards and downwards," &c.; we would suggest the substitution of the same word as before for "*downwards*."

The author recommends that, the "taxis should be repeated, at intervals of one or two hours, until it succeeds, or until all reasonable hope of success is at an end; which is the case when the hernia has been strangulated for about thirty-six hours, or very little beyond this time, for mortification of the intestine occurs rapidly." p. 88. The adjuvants to the taxis are stated, though with scarcely sufficient force, considering their importance; and in the mention of *ice* as one of these, it is recommended, not for the purpose of assisting in the reduction of the hernia, but "to retard the advance of inflammation." We think that it is injudicious to prescribe any number of hours during which it may be safe to postpone the operation in the event of the failure of the taxis, bleeding, the warm bath, the application of cold, the use of tobacco clysters; it is much safer to be guided by the condition of the individual patient; Sir A. Cooper's advice is strong upon this point.

The proper mode of using the knife in this operation is very well expressed; yet here, also, a little more clearness and harmony in the arrangement of the descriptions of its different steps is desirable. (The author does not always keep in mind that an explanation which would be sufficiently transparent to himself, and others equally advanced, might be cloudy to a student.) In endeavoring to ascertain the seat of the *stricture*, the author advocates the proper method; but he errs, we think, in the opinion that, the same exploration which enables the finger to detect the point of strangulation will permit of the formation of a decision, as to whether the hernia be oblique or direct, by fixing the position

of the epigastric artery. For suppose the stricture to be at the external ring; in order that the finger shall be able to reach the epigastric artery, which is at some distance from the ring, the stricture must first be passed, yet a stricture which would admit of this would be no stricture. This must be simply an error of expression, however, on the author's part.

In enumerating the possible points of stricture in *femoral* hernia, the author mentions the falsiform process of the fascia femoris, and Hey's ligament, as though they were different structures, and not synonymous with each other.

It would have been well had the author prefixed to the description of these operations, a brief account of the Anatomy of the parts, in which the relative situation of the arteries concerned had been particularized.

With regard to the other operations, we will only say that the author has been judicious in his selections, and as liberal in his details as his limits would permit; it is impossible that, in so small a book, every operation can be described, and it is necessary that a large discretion should be allowed to the author, under these circumstances.

On the important subjects of Fractures and Dislocations, the chapters are full and interesting, and contain many valuable hints and recommendations, some of which we do not remember to have elsewhere met with. The author evidently speaks from experience in these matters, and his remarks commend themselves at once to the reader.

We can speak generally in similarly commendatory terms of the chapters devoted to the consideration of the various diseases and injuries of different organs. A brief, clear and decided exposition of the phenomena and treatment of disease is, on many accounts, and in many circumstances, much more desirable than a very copious array of opinions and rules. The dissertation on *Aneurism*, however, should have been more full and complete, and the author should not have failed to dwell emphatically on the treatment by pressure, so successfully practised by some of the Irish surgeons and others. The chapters on *Venereal diseases* are much more satisfactory, and will interest and instruct. He recommends strongly a cold infusion of the powdered root of "the Hydrastis

Canadensis, called Golden Seal," in the proportion of ʒss. to $\frac{1}{2}$ pint of cold water, as an injection in gonorrhœa.

On the subject of the diseases of *the Eye*, the author's chief authorities are Sichel and Weller. We have long been fond of Sichel's book, and have found his descriptions very clear and simple. His treatise is not so generally esteemed in this country as those of the English Ophthalmologists; but it has afforded us more satisfaction, and we are pleased to find that Dr. Hastings appeals to him.

We must now take leave of the author. We have been obliged to differ from him in many instances, but we trust that we have not failed to express our satisfaction in others; "naught did we in hate, but all in honor," and we sincerely hope that there will be speedy occasion for a second edition of his book, which, by being rendered more elegant and precise in style, and further improved by additional time and study bestowed upon its arrangement and preparation, will enhance still more the reputation of the author.

F. W. S.

Report on the Practical operation of the Law relating to the Importation of adulterated and spurious Drugs, Medicines, &c. By M. J. BAILEY, M. D., Special Examiner of that class of merchandise in the United States Customs at the Port of New York. Read before the New York Academy of Medicine, June 6th, 1849. Published by order of the Academy. From the New York Journal of Medicine. 8vo. pp. 20. New York, 1849.

This report gives us the first official information in regard to the effects of the recent law on the inspection of foreign articles of the materia medica. It had long been known, to those engaged in pharmacy more especially, that the most spurious articles had been introduced extensively into the country; that the galenicals were frequently anything but what they purported to be, and the chemicals not unfrequently most carelessly, and often fraudulently prepared; nay, that positive danger—as in our own experience—had followed the administration of what ought to have been entirely innoxious. Yet few had anticipated such astounding disclosures as are promulged in the present Report; and it must be

not a little gratifying to Dr. Edwards, of Ohio—by whom the bill “relating to the Importation of adulterated and spurious Drugs, Medicines, &c.,” was brought before, and successfully carried through, Congress—to find that such signal benefits had resulted to the profession of which he is a respected member by his well directed and well crowned endeavours.

We are free to confess, that we had serious apprehensions in regard to the mode in which the law would be carried into effect ; and these apprehensions have, in some cases, been verified by the results. There was danger, it appeared to us, that the office of inspector might be bestowed, for political considerations, upon physicians who had not applied themselves especially to the study of pharmacy ; or on pharmacutists whose investigations had not extended farther than might be necessary for keeping a respectably ordered retail establishment. There was danger, too, that the claims of analytical chemistry, as a part of the qualifications of the inspecting officer, would be overlooked ; yet it is obvious, that for the detection of spurious or adulterated chemicals it is indispensable ; and, accordingly, at an early period, we ourselves took the liberty of urging, in the proper quarter, serious attention to this point.

The Report before us had its origin in the following manner. On the passage of the bill prohibiting the importation of spurious and adulterated drugs, medicines, medicinal preparations, &c., [we should like to see the synonymy of these various terms,] Dr. Bailey was requested “by the Hon. Thomas O. Edwards, the able and philanthropic chairman of the special committee of the House, to which that important subject had been referred, to note the practical working of the law at the port of New York, (where three-fourths or more of the importations of that class of merchandize were presented for entry,) and furnish, in such a manner as might be agreeable to himself, a report of the same, prior to the next meeting of the National Medical Association, in order that the information therein contained might have the greatest possible circulation through the country.” p. 3.

The law took effect at the port of New York on the 12th of July, 1848, and the following is a list of the more prominent “drugs and medicines,” with the quantities and place whence im-

ported annexed, which Dr. Bailey, during the months named, rejected under its provisions.

July, 1848,	7,581 lbs.	Rhubarb root,	from Canton.
August,	750 lbs.	Opium,	do. Marseilles.
do.	2,940 lbs.	Jalap root,	do. Tampico.
do.	2,249 lbs.	Rhubarb root,	do. London.
September,	646 lbs.	do. do.	do. do.
do.	1,414 lbs.	Gamboge,	do. do.
do.	545 lbs.	Rhubarb,	do. Hamburg.
do.	1,400 lbs.	Senna,	do. Leghorn.
do.	2,900 lbs.	Spurious Yellow Bark,	do. Bordeaux.
do.	875 lbs.	Rhubarb,	do. Canton.
do.	758 lbs.	Opium,	do. London.
do.	1,783 oz.	Iodine,	do. do.
do.	1,075 lbs.	Rhubarb,	do. Marseilles.
do.	4,275 lbs.	Jalap,	do. Vera Cruz.
October,	788 lbs.	Rhubarb,	do. London.
do.	227 lbs.	Myrrh,	do. do.
do.	13,120 lbs.	Spurious Yellow Bark,	do. Maracaibo.
do.	1,875 lbs.	do. do. do.	do. Bordeaux.
November,	412 lbs.	Myrrh,	do. London.
do.	1,280 oz.	Iodine,	do. Glasgow.
do.	860 lbs.	Opium,	do. Smyrna.
do.	185 lbs.	Rhubarb,	do. London.
December,	156 lbs.	Opium,	do. do.
do.	1,065 lbs.	Myrrh,	do. do.
* do.	12,800 lbs.	Spurious Yellow Bark,	do. Santa Martha.
do.	392 lbs.	Jalap,	do. Vera Cruz.
January, 1849,	1,300 lbs.	Pectoral Paste,	do. San Juan.
do.	2,071 lbs.	Rhubarb,	do. London.
do.	3,550 lbs.	Jalap,	do. Havanah.
do.	1,930 lbs.	Spurious Bark,	do. Antwerp.
February,	974 lbs.	Rhubarb,	do. London.
do.	1,992 oz.	Iodine,	do. do.
March,	1,104 oz.	Croton Oil,	do. do.
do.	4,894 lbs.	Senna,	do. do.
do.	1,345 lbs.	Spurious Bark,	do. do.
do.	404 lbs.	Opium,	do. do.
do.	1,150 lbs.	Valerian root,	do. Paris.
April,	425 lbs.	Opium,	do. London.
do.	1,273 lbs.	Myrrh,	do. do.
do.	550 lbs.	Jalap,	do. Vera Cruz.
do.	816 lbs.	do.	do. Tampico.
do.	1,450 lbs.	Sarsaparilla,	do. do.
do.	600 lbs.	Spurious Bark,	do. Barranquilla.

These, with smaller quantities of sundry articles rejected by him from time to time, make the whole amount recorded up to the time of writing his report about *ninety thousand pounds*!!

It would seem, that the mere passage of the law had exerted a salutary effect on foreign importations of chemicals; for, according to Dr. Bailey, no medicinal chemical preparations of any import-

ance have been presented to entry at the port of New York since it took effect. "The agitation of the question for several months prior to the passage of the bill," he observes, "doubtless had the effect of putting those engaged in the nefarious traffic on their guard; and as this country was the principal market for merchandise of that description, it is to be presumed, that the manufacture abroad has been, in a great measure, discontinued. The worthy popular foreign manufacturing chemists, who have never been known to send out from their laboratories an impure article, look, as far as I can learn, upon the law in question with much favor; and well they may, for their sales have, in consequence, greatly increased. This, however, is very readily accounted for from the fact, that by stopping the importation of base adulterations and imitations, the genuine foreign articles are immediately in greater demand, for the reason, that the business of preparing the extensive variety of chemical preparations used in medicine is still in its infancy in this country." p. 9.

Were there no other result flowing from the operation of the new law than that pointed out by Dr. Bailey in the preceding extract, the profession and the public ought to look upon it with great interest, and to use every exertion to have its beneficial operation extended. Not many years ago, we were surprised to find several patients affected with severe vomiting and diarrhoea from an ordinary dose of the harmless *Hydrargyrum cum Cretâ*, imported from abroad from a well known establishment in London; and on examination it was found to be adulterated with the red oxide of mercury!

But although eminent advantage has resulted in the case of foreign importations, Dr. Bailey does not deny that an evil has sprung up as regards domestic manufactures.

He shows, that "as far as sophisticated chemical and medicinal preparations are concerned, we have now but little to fear from the foreign manufacturer and speculator, while we have *increased* cause for vigilance at home, not only as respects the finer preparations, but also that almost equally important class of medicines known to the trade as crude drugs, to wit: opium, barks, roots, medicinal gums, &c. &c., whether in a natural or powdered state;" and he remarks, that of spurious and worthless cinchona barks he has thus far rejected about *thirty-four thousand pounds*, for the

reason, that they contained *none*, or but a trace of the natural alkaloids of the *true* barks, and were, therefore, totally devoid of any antiperiodic virtue. "To suppose," says he, "that we have none among us engaged, or who *will* engage in the preparation and sale of spurious and adulterated medicines, is to place a higher estimate upon the conscientious scruples of that portion of our speculating and trading community with whom the almighty dollar is paramount to all other considerations, moral, if not divine, than from my somewhat extensive observations I am willing to concede. Even at this early day, the fraudulent work of their hands is but too visible. Within the last month or two, sulphate of quinine [we wish Dr. Bailey would use the *pharmacopæial* name] "in considerable quantities, bearing the label of Rosengarten and Denis, Philadelphia, has been found in market adulterated to the extent of some twenty or twenty-five per cent. The same may be said of quinine bearing the label of the London Alkaloid Company, likewise that bearing the label of Pelletier, Delondre, and Levailant, Paris. Now these frauds were perpetrated by our own people, or among our own people, and after the article, too, had come into the hands of the purchaser. The manufacturers sent them forth pure, and had nothing to do with the sophistication. Each of the firms named stand [stands] too high, and deservedly so, to warrant even a suspicion of such unpardonable baseness." p. 10.

To prevent these home frauds Dr. Bailey suggests, that the National Medical Association—which has already a committee on the subject of the falsification and adulterations of drugs, of which Professor Huston, of this city, is chairman—"should appoint a committee composed of *two* or more from each State, whose duty it shall be to closely scrutinize powdered drugs, and all other medicinal preparations found on sale throughout the country; and of those inspected, let them purchase small quantities, and subject the same to analysis; and if they prove to be of inferior strength, or to have been fraudulently prepared, let the fraud be promptly exposed through the columns of our numerous medical and other journals; and let the committee report all particulars at the next annual meeting of the Association."

Such a committee could not possibly—we think—reach the evil. What, for example, could two persons, so appointed, accomplish in

the Empire State, with her numerous populous cities! The blot, moreover, appears to us to be on the escutcheon of the pharmacutists, and it behooves them to remove it. If they would institute a proper pharmaceutical police, they could soon, by proper exposure, purge their body of unworthy members, who, from gross venality, and utter recklessness of human life and honesty, are guilty of these nefarious practices. Much, however, has been done by awakening attention to the subject, and we hope to see them abandoned at home, as they have already been by the foreign manufacturers and merchants, owing to the publicity given to them, and the enactment of the wholesome law, under which Dr. Bailey has proved himself so able and energetic an officer.

Lectures on the Diseases of Infancy and Childhood. By CHARLES WEST, M. D. Fellow of the Royal College of Physicians; Senior Physician to the Royal Infirmary for Children, etc. etc. Philadelphia: Lea & Blanchard, 1850.

We have observed with great pleasure the increasing interest manifested by the profession during the last few years, in regard to the diseases of children, considered as a distinct subject of study. That these diseases are worthy of such consideration, both by the student and physician, will, we think, be denied by none who are acquainted with the differences of organization in early and mature life, who will reflect upon the different methods of treatment rendered necessary in the child by its peculiarities of organization, or who has been taught by experience what obstacles to a correct diagnosis meet him who has not made the diseases of early life, in some degree at least, a separate and distinct study. In view of these reasons, therefore, and for the additional one of the very heavy mortality which occurs during the first few years of life, we are greatly pleased to meet with a work like the above, coming from one who has already distinguished himself as an able and accurate observer in medicine.

We shall not attempt to present the reader with a complete analysis or labored criticism of Dr. West's book, but shall merely call attention to some of the more important points discussed by

the author, and give, as we pass along, our candid and impartial opinion upon his merits as a writer, and as an observer.

The work consists of a series of lectures, the substance of a considerable part of which, we learn from the preface, was addressed to the pupils of one of the London Hospitals, in the summer of 1847. The Lectures were formerly printed in the *Medical Gazette*, and are now collected and published as a distinct work for the first time. It is stated in the preface that they differ but little in their present form from those which appeared in the *Gazette*.

Dr. West's first lecture is introductory, and is devoted to the consideration of the peculiarities of disease in children, of the necessity there is for a special study of those diseases, and of the difficulties to be met with in that study. It contains also some rules for the examination of sick children, some suggestions on note-taking, and remarks on the general plan and objects of the course. This is a well written and instructive chapter, but we regret that the author has not made two lectures rather than one upon these subjects, and thrown into the second the remarks upon the peculiarities of organization in children, which are prefixed to the history of the affections of each of the systems of the body. Under the present arrangement the student learns nothing of the special characters of the circulatory and respiratory systems in the child, as compared with the adult, until he comes to page 145, where the diseases of those systems are entered upon. This, it seems to us, is to be regretted, since it is essentially necessary to be aware of the physiological characters of those important functions in order to make a correct diagnosis of any case of disease whatever;—and yet, under the existing division of subjects, the student is carried through the whole of the diseases of the nervous system without being informed as to the normal rate and other characters of the pulse and respiration.

The following eleven lectures are occupied with a description of the diseases of the nervous system, and they are all replete with instruction and interest. We would invite particular attention to those upon congestion of the brain, upon acute and chronic hydrocephalus, and upon acute inflammation of the brain. We are glad to find that Dr. West agrees with the French observers as to the almost invariable dependence of acute hydrocephalus upon tubercu-

lar disease of the meninges. Dr. West does not follow the nomenclature now generally employed in France and in this country, which designates this disease as Tubercular Meningitis, a title which has always appeared to us both more correct and expressive than that of acute hydrocephalus. Moreover, the term Tubercular Meningitis indicates the essential lesion of the disease, and refers at once to its real nature; that of acute hydrocephalus refers to one of the effects only of the essential morbid change, one too which is not always present, and does not therefore constitute a necessary part of the disorder. That effusion is not always present in the disease, is shown by Dr. West's own statement, to the effect, that he found an appreciable quantity of fluid in the ventricles in 28 out of 30 cases, leaving us to infer that in two there was no *hydrocephalus* whatever.

Our author confirms the fact already established by the recent French observers, that simple meningitis (independent of tubercular deposit,) is very rare, compared with the tubercular form of the disorder, a fact, we may be allowed to observe, not sufficiently appreciated by the profession in this country.

The diseases of the respiratory organs are treated of in the thirteen lectures following those devoted to the nervous system, and we can truly say, that we know of no work which contains, in an equal compass, an equal amount of valuable information upon these subjects. The pulmonary affections of children, especially the tubercular, are more copiously and elaborately examined in that most valuable of all the works upon diseases of early life, the treatise of MM. Rilliet and Barthez, but the details in that work are so abundant and so minute, that few who command the language have the patience to study them as they deserve, and to such the more concise and simple style of Dr. West will prove of the greatest service.

Lectures thirteen and fourteen are particularly interesting. In the former are some valuable observations on the nature, symptoms, and treatment, of the condition of imperfect expansion of the lungs in neonati, first described by Dr. Edward Jörg, under the title of Atelectasis Pulmonum. This condition in the new born child, is, we feel sure, generally confounded in this country with cyanosis depending on cardiac malformation, and we are therefore

pleased to invite the attention of American practitioners to the clear account of it given by Dr. West.

In lecture fourteen our author works out with great ability the history of a fact first discovered and established by two young countrymen of that land, to which medicine owes so many of the most valuable discoveries made in pathology and practice during the last forty years. In the Archives Générales de Médecine, (Nos. for January, February and March, 1844,) are three papers by MM. Legendre and Bailly, entitled *Nouvelles Recherches sur quelques Maladies du poumon chez les Enfants*. These gentlemen show, and we think most conclusively, that several of the pulmonary lesions observed in infants and young children, which have hitherto been ascribed to inflammation, and described under the head of pneumonia, are, in fact, due to a return of the lung to its foetal condition, or, in other words, to collapse of the air-cells. They have shown that the alterations called splenization and carnification, and supposed to depend on pneumonia, are the results, not of inflammatory processes, but of a collapsed state of the part of the lung in which they are found. More important than this, however, is their assertion that lobular pneumonia is, in the great majority of cases, bronchitis with collapse of portions of the air-cells, the supposed hepatized lobules met with in that disease being merely lobules in a state of imperfect expansion. In some rare instances, however, a true lobular pneumonia, one consisting of disseminated and distinct patches of inflammation of the parenchyma, does occur, and to this they give the title of "*pneumonie partielle*." For the history of these new opinions, the facts upon which they repose, and the modifications rendered necessary by them in the treatment of pulmonary disorders, we must refer the reader to the papers alluded to, and to Dr. West's excellent lecture on the subject.

We are glad to find, from the remarks upon the treatment of pneumonia, that Dr. West has been led to modify his mode of administering tartar emetic in that disease since the publication of his valuable paper on the pneumonia of children in the April number, 1843, of the British and Foreign Medical Review. In that paper he states that he employed tartar emetic "in doses of a quarter of a grain to a child of two years old, repeated every ten minutes till full vomiting is produced, and continued after-

wards every two or three hours, for forty-eight, or sixty hours." In the lectures at present before us, he recommends (page 199) doses of "one-eighth of a grain every ten minutes, till vomiting is produced in the case of child of two years old, and continued every hour or two hours afterwards for a period of twenty-four or thirty-six hours." It will be seen by a comparison of the two statements, that in the more recent of Dr. West's writings the doses are reduced one-half below those in the first publication, and that the remedy is directed to be continued only half the length of time. We repeat, that it has given us great pleasure to observe this change of opinion in so accurate and able a physician as Dr. West, since it goes to confirm what we have long been convinced of, to wit, that the administration of antimony to children in the doses formerly proposed by Dr. West, and recommended also by many other writers, are often dangerous in their effects. Certain it is, that these doses have proved too large for many children who have come under our hands. We believe, indeed, that the quantities recommended by our author, in his present work, are even still too large. At least, we have found them seriously violent in their effects in many cases, and as our experience has occurred chiefly amongst the generally hearty and robust children met with in private practice, in the middle and upper ranks of society, we cannot but think that they must be still less suitable for the subjects of Dr. West's experience, as these were the children of the lower classes of the London population, of such as apply at an infirmary for out door-relief.

Dr. West does not recognize the distinction of two kinds of croup, besides that form of spasmodic disorder, now generally called laryngismus stridulus, but which Dr. West speaks of as the true spasmodic croup. He denies the propriety of making a form of croup depending on slight inflammation of the larynx, without formation of false membrane, and presenting in a very marked degree the signs of spasmodic disorder of the larynx. In this view Dr. West seems to us to be in the wrong. The descriptions given by MM. Guersent, and Rilliet and Barthez, would alone suffice to convince us of the existence of two kinds of croup, located entirely in the larynx, and totally different from laryngismus stridulus; of one in which the type of the inflammation is the simple erythematous; in which the degree of inflammation is very slight;

in which the nervous symptoms greatly predominate ; which is vastly more frequent than the other, constituting, in fact, nineteen-twentieths of the cases called croup by the public ; which is very rarely dangerous to life, and which, according to our own experience, never runs into the membranous form ; and of another, in which the type of the inflammation is the membranous ; in which the nervous symptoms are present, but are accompanied by more or less violent febrile reaction, and by the signs of mechanical obstruction of the air-passages ; which is rare in occurrence comparatively ; which generally occurs as an epidemic affection ; and which is highly dangerous to life, even under the most wisely directed and energetic plan of treatment. In addition, however, to the evidence of the French authors referred to, our own experience, during eight years past, has convinced us most positively of the existence of these two forms of laryngeal disease, and of the propriety, and even necessity, of making the distinction in practice. Dr. West ascribes all the difference between the two forms to idiosyncrasy of the patient, and says that " no advantage seems to me likely to arise from constituting a new species of croup out of a modification in its symptoms, produced by the idiosyncrasy of the patient." We believe, as already stated, that there is a very marked difference between the two, one which cannot be accounted for on the supposition of idiosyncrasy alone. We think, also, that very great advantage is to be derived from the distinction, since the physician, who is aware of the distinction, and who has learned to make the diagnosis of the two forms, will not feel himself obliged, as heretofore, to bleed, leech, calomelize and antimonialize all the children to whom he is called affected with a croupal cough, or even with a nocturnal attack of croupal suffocation, under the idea that there is but one form of croup, and that croup is always dangerous ; and since he will know that the great majority of such cases recover perfectly well, if treated with a warm bath, or mustard foot-bath, and an emetic, or even with a few nauseating doses of any emetic substance.

Our author's account of whooping cough is exceedingly clear and practical, and we refer the reader to it for valuable information, in regard to the complications most to be apprehended, and as to their modes of prevention and treatment. Dr. West does not believe that we possess any remedy which will cut short an attack of the

disease, and in that we entirely agree with him. We are surprised, however, to find no reference to the use of alum in whooping cough, a remedy first proposed, we believe, by Dr. Golding Bird of London, and which we have found of greater efficacy in moderating the violence and frequency of the paroxysms, than any other means.

Passing over the lectures on Phthisis and Diseases of the Heart, we come next to those upon diseases of the organs of digestion and assimilation. To the latter, ten lectures are devoted, containing concise and accurate histories of the various affections of the mouth and abdominal organs. Amongst many valuable details in these lectures, we would call attention particularly to lecture twenty-seven, in which the peculiarities of the digestive organs in infancy, the evils of artificial diet, the great importance of infants being suckled, and the best kinds of artificial nourishment, are all ably and carefully considered. The remarks upon dentition and upon the different kinds of stomatitis, are also very interesting. It is in the lectures upon intestinal diseases that our author has appeared to us most to fail. So far as his remarks go, they are, like all that he has written, sensible and useful, but he has not devoted to them an amount of space and attention commensurate with their importance, at least as they shew themselves in this country.

The lecture upon the diseases of the urinary organs, and that upon abdominal tumors and infantile syphilis, are highly creditable to Dr. West's knowledge of what others have done, and to his personal observation, but they show clearly how much remains to be learned, in regard to those affections as they occur in early life.

We shall here conclude what we have to say upon the work before us, with the remark that we were surprised to find that Dr. West had crowded into a single lecture, the histories of two such frequent and important diseases of childhood as measles and scarlet fever. This is the more surprising as he quotes at the beginning of the lecture the statement of Dr. Gregory that "in an average of five years, very nearly six per cent. of the mortality of London is due to measles and scarlatina," and that 81 per cent. of this mortality occurs under five, and 97 per cent. under ten years of age. The account of scarlatina is particularly short and imperfect: in fact, it might almost as well have been left out of the book, as the student will vainly seek in it a complete history either of the symptoms, nature, or sequelæ of the disease, or an able and satisfactory method

of treatment. This seems to us the more extraordinary, as of all diseases with which we are acquainted, this has appeared to be one of those most requiring an accurate knowledge of all its forms and phases, of its present and consecutive lesions, and a ready acquaintance with whatever observation and experience have taught in regard to its treatment.

In conclusion, we shall state that, after a careful perusal of Dr. West's work, we are convinced that it is one of the best publications ever issued, upon diseases of children. Parts of it, and especially the lectures upon diseases of the respiratory organs, and some of those upon the affections of the nervous system, are deserving of the highest praise for patient research, happy descriptions of symptoms, accuracy, and plain and sensible directions for treatment. The style of the author is agreeable and pleasing, and at the same time simple and perspicuous in a very high degree. We recommend the work to our American brethren, as one which they cannot read without both pleasure and profit.

J. F. M.

A Treatise on the Diseases and Special Hygiene of Females. By COLOMBAT DE L'ISERE. Translated from the French, with additions, by CHARLES D. MEIGS, M. D., Professor of Midwifery and the Diseases of Women and Children in Jefferson Medical College, Philadelphia, &c., &c. A new edition revised, with wood cut illustrations. Philadelphia, Lea & Blanchard. 1850.

The early call for a new edition of a work is always convincing proof of its favor with the public, and such is manifestly the case with the work before us. In our notice of the first edition, occasion was taken to speak in terms of high commendation both of the work itself, and of the additions derived from the vast experience of Professor Meigs. To the second, although greatly emended, no new matter has been added, the translator referring the reader to his *Letters on Diseases of Females*, and his work on *Obstetrics*, both recent publications, prepared and published since the issue of the first edition of Colombat, in which his opinions are expressed more at large.

Whatever may have seemed exceptionable in style or language in the previous edition, has been thoroughly remodelled in this, and the work is now presented to us in a guise as attractive as any that has ever emanated from the same source.

THE MEDICAL EXAMINER.

PHILADELPHIA, NOVEMBER, 1849.

CRYPTOGAMOUS ORIGIN OF CHOLERA.

In the London Medical Times of September 29th, 1849, the following curious microscopical discoveries are published under the editorial head.

“It appears, that Dr. Brittan has discovered in the flocculent sediment which exists in the matter vomited and voided per anum in cases of cholera, (and which has been variously considered to be mucus, fibrine, or another protein compound in a peculiar and as yet undetermined state,) certain organic corpuscles, which both to him and to other observers well versed in such inquiries, appear to be fungi. In their most developed condition these bodies are of some size, that is, are considerably larger than blood corpuscles. They have a well-defined transparent double outline, which occasionally becomes opaque and thickened. The centre is occupied by granular matter or by cells, and has somewhat of a yellowish or brownish hue. The smallest of these bodies are much more minute, and require the highest powers (such as Ross’s or Powell’s 12th) before they can be satisfactorily made out. They then appear as minute cells, with a clear double outline, and bear a very strong resemblance to the sporidia of fungi. Both kinds of cells appear to be spherical, or but slightly flattened, and the transition from the one into the other can be traced with a little care. These bodies are not to be confounded with the granular cells which Dr. Brittan also finds in great numbers.

Did the observation stop here, the discovery of fungi different from the common torulæ, which often form rapidly in cholera stools, and which have been figured and described by Boehm and others, would, no doubt, if confirmed, be highly important. But Dr. Brittan has proceeded further. By causing the air of rooms and districts in which cholera is prevailing, to pass through a glass tube surrounded by a freezing mixture, he has condensed the atmospheric watery vapor. In this vapor he finds under the microscope, minute spherical bodies, corresponding as far as the eye can determine, most completely with the smallest kinds of the presumed fungous cells, which can be noted in the cholera dejections. We understand that observers of the highest eminence in this department of Histology, have expressed a decided opinion as to the identity of these bodies.

We have first to determine what these bodies are; since, of course, it is by no means certain that they are fungi. But, supposing they *are* fungi, they may merely be products; low cellular forms developed rapidly in the favorable matrix of the cholera stool, just as the little

vibriones are, which sometimes can be seen under the microscope moving in shoals in a dejection which has only the moment before been passed from the body. Perhaps the spores of these fungi may exist at all times in impure and contaminated air, and may merely find in the cholera discharges their appropriate blastema. We foresee the greatest difficulty in deciding upon some of these points, and, assuredly, the only accurate method will be, to make at once an inquiry as extended as possible into all the questions connected with the subject.

These microscopic observations have been confirmed by those of Dr. Alison, of Birmingham, Mr. Swayne, of Bristol, and Mr. Curme and Dr. Cowdell of Dorchester. The latter gentlemen have also observed in the clammy sweat accompanying the last stages of collapse in cholera, as well as in other excretions, minute organized bodies closely resembling those admitted by naturalists and microscopists to have a *protophytic* organization.

The priority of this discovery admits of some question, inasmuch as there is abundant evidence that cryptogamous growths had been seen in cholera dejections at a period anterior to the observation above recorded. In the "Treatise on Physiology and Pathology for Physicians and Naturalists," published at Leipsic in 1843, occur these words, "Böhm fand Pilze im Darminhalte der Cholerakranken." Boehm discovered cryptogamous plants in the dejections of cholera patients." Of these growths he published accurate drawings.

But, waiving for the present the discussion of priority, there are some other elements to be taken into consideration before the establishment of the fungous origin of this, or any other disease. It must be proved that these growths are invariably present in cholera dejections; that they exist in the atmosphere of infected localities; that they are uniform in their character and appearance; *and that they are met with under no other circumstances.* Should these points be established, they would be strikingly confirmatory of the theory long ago advanced by Prof. Mitchell of this city, and since him, by Dr. Cowdell of England, of the cryptogamous origin of this disease. At this early stage of the examination, however, any conclusion would be premature and ill-founded; it is only by the severe test of repeated observation and careful experiment that a theory such as this can be established. As was observed on another occasion, "the philosopher sets out with a preconceived idea, the result of profound thought and careful examination of every fact or phenomenon, that can have any—the most remote—bearing on the subject of his inquiry; he observes and compares the recorded observations of others, and if, after a sedulous examination into every possible source of fallacy, he finds that the observations con-

firm and establish his hypotheses, he correctly infers that he is justified in regarding that, which was at first hazarded as an hypothesis, to be a law of phenomena, and a solid addition to science. If, on the other hand, the result of reiterated observation of phenomena does not support—and *à fortiori*, if it negative his preconceived hypothesis—he unhesitatingly rejects it, and substitutes another, which has to be subjected to the same scrutiny; and thus he proceeds, until at length he succeeds in framing and establishing one, that receives unquestionable support from observation.”

Some of the difficulties that present themselves in the present case arise from the fact that cryptogamous growths are found under other circumstances and in other diseases. Henle found cryptogamous plants in the vaginal discharges of a syphilitic patient; Schonlein, in the fluid of abdominal dropsy; Turpin, in the milk in the interior of the milk tubes; Quevenne, in the urine of a diabetic patient; Goodsir, in the matters ejected in pyrosis; and Klencke, in a sore in the interior of the nose of a woman in whose house toadstools grew.* Within a short period, also, Dr. Leidy, of this city, has discovered cryptogamic plants in the mucus taken from a stomach which had been softened by disease, and which were similar to those often found in the tartar of the teeth.

It is thus seen that fungi may be found in other diseases in man. But it is not to man alone that these parasites are confined, nor is the knowledge of their existence at all recent. In 1832 Mr. Owen read some notes before the Zoological Society on the anatomy of the Flamingo, (*Phœnicopterus ruber*), in the lungs of which he found numerous tubercles and vomicae, the inner surface of which latter was covered with a greenish mould or mucor. Mr. O. presumed these growths to have taken place during life, and thence concluded that internal parasites are not derived exclusively from animals, but that there are *Entophytes* as well as Entozoa. (Philosophical Mag., 1833, New Series, Vol. II., page 71.)

In 1835, M. Bassi, of Lodi, and M. Balsamo, of Milan, discovered that the disease of the silk-worm, called *muscardine*, was owing to the growth on, or within the body, of a cryptogamous vegetation. (Annales des Sciences Naturelles, Vol VIII., new series, p. 229.)

In 1839 Schonlein announced the existence of *mycodermata* in the crusts of *Tinea favosa*, (Müller's Archives.) MM. Fuchs and Langen-

* Abhandlungen aus dem Gebiete der PHYSIOLOGIE und PATHOLOGIE für Aerzte und Naturforscher von Dr. P. F. Klencke, Leipzig.

beck, at Gottingen, supposed that they proved the existence of *mucor*es not only in the crusts of *Tinea favosa*, but also in the majority of the eruptions termed scrofulous. (*Traité des Maladies de la peau* Gottingen, 1840.) Latterly much fuller accounts, and more correct descriptions of this disease have been given by Mr. Gruby of Vienna, who states that the crusts of *Tinea favosa* are made up of aggregated *mycodermata*. (*Comptes rendus*.)

In 1840 M. Des Longchamps described some layers of mouldiness occurring in the aerial cavities of the eider duck. (*Anas Mollissima*.) (*Ann. des Sci. Nat.*, June, 1841, p. 371.)

In 1841 Mr. Westwood exhibited dried specimens of Chinese larvæ, from the back of the necks of which a slender fungus, twice as large as the body of the insect, had been produced. (*Annals of Nat. Hist.*, Nov., 1841.)

MM. Rousseau and Serruriers discovered a mouldiness of a different character from that described by M. Des Longchamps, which is not unfrequently found in pigeons and fowls exposed to a damp, cold atmosphere. They found it also in a paroquet, which died of tubercular disease, in a sort of false membrane between the intestine and vertebral column, which membrane was covered with a greenish pulverulent mouldiness, so light and so little adherent, that it could be blown off as a fine powder. A similar affection has been noticed by him in animals of other classes, as in *Cervus Axis* and *Testudo Indica*. And Langenbeck noticed the development of highly organized members of this division of the vegetable kingdom, in the body of a patient who died of typhus. (*Microscopic Journal*, London, Dec., 1841.)

In some animals cryptogamous plants are invariably present in the intestinal canal. Dr. Leidy has shown us three distinct genera, not heretofore known, which he has discovered in the small intestine of the *Julus Marginatus* of Say, an animal somewhat resembling the Centipede, a description of which he presented to the Academy of Natural Sciences, of Philadelphia, at their last meeting. These plants, the largest which may be seen with the unassisted eye, he has called *Enterobrus Elegans*, or intestinal alga; *Cladophytum comatum*, or hair-branched plant; and *Arthromitus cristatus*, or tufted-pointed thread. They are not only found growing from the basement membrane of the mucous layer of the intestine, but even upon the bodies of parasitic entozoa that infest the same cavity.

The above briefly recited facts, too few in number to admit of any general deduction, yet make it clear—

1st. That parasitical growths occur in nearly all classes of the animal kingdom.

2d. That these growths usually arise on the surface of the animal organism, and are sometimes prolonged thence into the texture of the part.

3d. That they have, in several instances, been ascertained to constitute the cause of disease and death; and that the disease thus produced, has been found in some cases contagious.

4th. That they are probably of two kinds, the one peculiar to animal bodies, and the other consisting of those cryptogamic vegetations which readily sprout up under favorable circumstances, on almost any inanimate substance. To the former kind may be referred the muscardine of the silk worm and mycoderm of *Tinea*, and to the latter, most of the other growths above alluded to. (Op. cit.)

A few words only as regards priority of discovery. It has already been shown that microscopic fungi were discovered by Boehm in cholera dejections, during the visitation of that disease in 1832. In a letter dated June 6th, 1849, from Dr. H. Holland to Prof. Mitchell, Dr. H. states that Ehrenberg of Berlin, in his recent researches with the microscope into the various forms of organic existence in the atmosphere, published in the Transactions of the Royal Academy of Berlin, had tabulated nearly 400 species of such organic forms thus obtained. He was led to the research in relation to the phenomena of cholera, as the disease occurred in Berlin in the autumn of last year. "In the course of our correspondence," says Dr. Holland, "he sent me some remarkable specimens of what he terms the *Purpurmonade*, as it appeared about the 29th of October, in Berlin, very extensively tingeing the bread and other eatables, of a vivid vermillion color, corresponding doubtless with the *white* you (Dr. Mitchell) describe as coloring paste, starch, &c. in Philadelphia during the prevalence of cholera there in 1832. Though it is hardly possible, looking to material evidence, to associate this with cholera in any direct relation of cause and effect, yet is the coincidence remarkable in every respect."

Ehrenberg has found in this seemingly simple vermillion colored substance, two cryptogamic and one animal species. The latter he terms *monas prodigiosa*.

Without any previous knowledge of the observations of Ehrenberg, Dr. Burk, of London, obtained analogous results from a portion of the affected bread; viz., two vegetable forms and one animal; the latter he considers a species of vibrio. So much for the discovery.

The Editor of the London Medical Times, with a candor that does honor to him as an impartial judge, awards to Dr. Mitchell the credit of first advancing the cryptogamous theory.

"The priority of having first entertained the idea that cholera depended on the presence of fungi in the atmosphere must be accorded to Professor Mitchell, of Philadelphia, whose ingenious work on the cryptogamous Origin of Fever, Cholera, &c., we reviewed three weeks since. His views were embodied in a course of lectures delivered at the Jefferson Medical College during the session of 1846—1847. In the Introduction he thus addresses the gentlemen who, at that time, composed his class:—"To you I had the honor of delivering, nearly in their present shape, the lectures which I now send to the press. Previously, I had not put my ideas on the subject of which they treat into so formal a shape, although I had announced *for years* to each successive class, my impression that, possibly, the protophytes might afford a good explanation of the causation of malarious and other diseases of a febrile nature. Of the production thus, at least, of yellow fever and cholera, I entertained less doubt, and taught, therefore, the sentiment with less reserve." And further on, he continues: "Experiments are in progress, which seem to promise more direct and unquestionable proof of the validity of our hypothesis."

We have thus presented to our readers a brief and hasty examination of the subject in a few only of its aspects. Already does the "cryptogamous theory" gain ground. Dr. Wm. Budd has adopted it, and strongly urges a method not only of destroying the poison by receiving all cholera discharges into some chemical fluid known to be fatal to the fungous tribe, but also of preventing its dissemination by supplying water from an uninfected district, "As water is the principal channel through which this poison finds its way into the human body."*

The difficulties that we have presented are not intended to discourage investigations, far from it; but rather to invite that sedulous and unbiassed observation by which alone the doctrine must stand or fall. "The value of these observations necessarily depends upon the universality of the phenomena; but at present, perhaps not more than 100 examinations have been made of cholera discharges for the purpose of determining the presence of these 'annular bodies,' and these observations have been made in only one or two localities. But to prove these fungi, if they are fungi, to be the invariable elements of the cholera discharges, and of the cholera atmosphere, examinations must be made, not in hundreds, but in thousands of patients; not in two, but in hundreds of localities."† According to their own statements, Dr. Brittan and Mr. Swayne declare that in some even of the most severe and rapidly fatal cases, few if any of the "cholera cells" appeared in the discharges, while in others they were "few and small," "not many and small," and "very few and small."

* See the abstract of this letter in the London Lancet.

† London Medical Times.

We hope most sincerely that this subject will be examined, and that continued and more extensive observations will be made; but let us have *all* the facts before a principle is established, let us have a reason for the faith that is in us, and let us bear in mind the saying of Bischoff, "There never is an important and comprehensive discovery made at once; the elements of it are generally obtained from different quarters, and from all these truth at last results."

NOTE.—After the above article had gone to press, we had the pleasure of reading a letter from *Assistant Surgeon* ROBERT SOUTHGATE, U. S. A., to Prof. Mitchell, in which he describes the sudden appearance of intermittent fever in his own family, while stationed at Fort Gratiot, Michigan, coincidently with the development of a large quantity of fungi in the cellar of his quarters, which cellar had not been opened for a very long time. What is singular in this narrative is, that six of other families numbering some thirty souls, (and residing in similar quarters,) and of two companies of Infantry at the same station, not one was attacked with fever of any description. We regret that we have not space to give the entire letter, which would amply repay the perusal. The above fact is all that our limits will allow. If it do not substantiate, at least it does not invalidate the theory of the "cryptogamous origin," and it is another item of testimony from a reliable source, in favor of a doctrine, which, if it do not lead to the desired goal, presents much to invite further researches in the same direction.

CARBONATE OF SODA AS AN ANTIDOTE TO THE CHOLERA POISON,

We invite the attention of our readers to the following documents, and will be pleased to learn the experience of any with the remedy proposed. The letter of Dr. Maxwell is an *exact* copy of that transmitted to the Department of State.

Dr. Francis G. Smith,

Dear Doctor,—I send to you in your editorial capacity the attending documents, just received from the Department of State in Washington. As they relate to an important subject, you can determine to what extent the idea of Surgeon Maxwell is well founded, and should be publicly noticed. There is, of course, no novelty in sub-carbonate of soda being good as a composer of the stomach in its irritable states. Its absolute ascendancy over Asiatic Cholera is, however, a different affair, and it, as prescribed by him, may be worthy of a special trial.

Very respectfully,

October 25th, 1849.

65*

W. E. HORNER, M. D.

DEPARTMENT OF STATE, *Washington, October 23d, 1849.*

Doctor Horner,

Sir,—I am directed by the Secretary of State, to forward to you the accompanying copy of a letter received with the despatches borne by the last steamer to this Department, from the U. S. Commissioner in China, Mr. Davis.

Yours respectfully,

GEO. P. FISHER, Clerk.

—
Hydra-bad, Deckan, August 25th, 1849.

Sir,—I do myself the honor to communicate to you for the information of the President of the United States, and the benefit of the people, the important fact which I have just ascertained in the treatment of cholera, viz: that the carbonate of soda is a speedy and effectual antidote to the poison of that disease.

I give it immediately a case of cholera is brought, in doses of a teaspoonful dissolved in gruel or water, and drank as hot as the patient can drink it.

It allays the pain and burning of stomach, produces sleep, and restores the heat of skin and pulse in a very short time.

If it should be vomited, I immediately repeat it with a little laudanum, and a full dose of oil, *so as* to cause the antidote to pass down as speedily as possible to the poison in the small intestines.

When any portion of the oil and antidote is passed in the evacuations, convalescence *will be found* to have already commenced, the patient will presently *pass urine*, and *then be out of all danger*.

I continue the antidote morning and evening, (if necessary,) and reducing the dose.

I will not trouble you with details, which will appear hereafter.

By thus addressing the head of such an extensive empire, I make sure that the knowledge of this antidote will be speedily transported through its vast extent, instead of being left to chance to work its way up against the stream.

Besides I am only performing what I consider a duty, at a time when the epidemic appears to be on the increase.

And, with the greatest respect, I remain your most obedient and obliged servant,

N. E. MAXWELL, M. D.

Surgeon, 3d Light Cavalry.

To the Secretary of State, United States, America.

—
DEPARTMENT OF STATE, *October 22d, 1849.*

The above is a true copy of the original on file in this Department.

JOHN M. CLAYTON, Secretary of State.

There is much evidence in favor of the saline treatment of cholera, originally proposed, we believe, by Dr. Stevens; certainly, at least, carried out with much success by him. Dr. Stevens states that of one thousand cases treated by him, or under his direction, not more than six per cent. have proved fatal. These cases included those occurring both in hospital and private practice. A letter from the Regent of Norway declares that the saline treatment was very successful. In Sweden it is stated to have been attended with better results than any other practice.

In the premonitory stages a seidlitz powder is given if there be diarrhœa; if sinking, without diarrhœa, be present, then a more active saline, as sulphate of magnesia, is used in combination with the Seidlitz powder, the patient drinking freely of beef tea seasoned with common salt. In the second stage, or that of developed cholera, the following powder is administered:

“R sodæ sesquicarb., ℥j.; sodii chlorid. ʒj.; potassæ chloratis, gr. vii., misce—to be dissolved in half a tumbler of water, and administered in severe cases every half hour; in some malignant cases, every fifteen minutes; while in those cases which are not very severe, it is to be given every hour. The frequency with which the dose is to be repeated in each particular case varies according to its circumstances. In every instance, the saline must be continued until the circulation is fairly restored; when once that point is gained, the intervals between the doses may be lengthened; when re-action is completely established, it is to be left off by degrees. In extreme cases, the dose of the chloride of sodium is to be increased two drachms, and in some cases to even more than this. In those cases where the stomach is very irritable, a dilute solution of chloride of sodium is to be thrown up into the intestines; the temperature of this saline enema being as high as the patient can easily bear, which, as a general rule, is about 100 degrees Fahrenheit. When properly used, this is a means of great value.

When the stomach is very irritable, the use of the saline powder may be occasionally suspended, and common effervescing mixtures, or small doses of the common soda powders, with an excess of the carbonates, used, until the vomiting abates, and then the carbonate of soda, with larger doses of the chlorate of potash, may be given without the chloride of sodium, or the chlorate of potash may be given by itself, in doses of ten grains each.”

The plan of treatment recommended by Dr. Stevens, although not identical with, is very similar to that of Surgeon Maxwell.—EDS.

THE MEDICAL SCHOOLS OF PHILADELPHIA.

It is gratifying to be able to state that the classes now in attendance upon the lectures of the different schools are as large as we ever remember to have seen them at this period of the course. This, it will be remembered, it under circumstances different from former years.

The lectures in all the schools commenced some weeks in advance of the accustomed date; notwithstanding which fact, and other causes, such as sickness, death, &c., which would make it probable that many would be prevented from attending lectures, the number of students now in town appears to be fully equal to that of last year. We hope that this auspicious beginning may be crowned with success, and that the succeeding year may find full classes in attendance at the very commencement of the courses.

APPOINTMENTS.

DR. J. M. WALLACE has resigned the lectureship on surgery in the Philadelphia Association for Medical Instruction, and DR. J. H. B. McClellan has been appointed in his stead.

Dr. Wallace was one of the earliest members of the Association, and during his long connection with it his duties were performed with zeal and ability. He bears with him the best wishes and highest esteem of his colleagues, with their regrets at his departure from among them.

DR. HENRY H. SMITH has been appointed one of the surgeons to *St. Joseph's Hospital*, Philadelphia.

TRANSYLVANIA MEDICAL JOURNAL.

We have received the second number (but not the first) of a new Journal published at Lexington, Kentucky, bearing the above title, and under the auspices of the Transylvania Faculty of Medicine.

We heartily welcome the new aspirant into the editorial corps, and trust that his most sanguine expectations may be realized. We are certain of one thing, however, that he will find, as the late Dr. Butterfield said, that editing a medical journal, although pleasant work in the main, is very like having a note in bank—*it shortens the months amazingly*.

RECORD OF MEDICAL SCIENCE.

ANATOMY AND PHYSIOLOGY.

Lectures on the processes of Repair and Reproduction after Injuries. Delivered at the Royal College of Surgeons of England. By JAMES PAGET, F. R. C. S., Professor of Anatomy and Surgery to the College.

LECTURE I.—CONCLUDED.

The capacity of repairing damages sustained by injury, and to reproduce lost parts, appears to belong, in some measure, to all bodies having definite form and construction. It is not an exclusive property of living beings; for even crystals will repair themselves when, after pieces have been broken from them, they are placed in the same conditions in which they were first formed. I know not what amount of mutual illustration, if any, the repair of crystals and living bodies may afford; but, in any case, we may trace here something like an universal property of bodies that are naturally and orderly constructed; all, in favorable circumstances, can repair at least some of the damages to which they are liable from the violence of external forces. The power of reproduction is distributed in various degrees through the animal kingdom. The general statement sometimes made, that the reparative power in each species bears an inverse ratio to its position in the scale of animal life, is certainly not proved; and many instances are contrary to it, such as the great reparative power possessed by the lizards, and the apparently complete absence of it in the perfect insects. That which is generally true is, that the reparative power bears an inverse proportion to the amount of germ power consumed in the development and growth of the individual, and in its maintenance in the perfect state. There are facts enough to prove that the power which can issue from the mysterious properties of a germ is limited; that it is not ever communicated to an indefinite quantity of matter; and there are enough to justify the hypothesis, that the germ power, thus limited, is in some measure consumed in the development of every new structure, and, in a less measure, in the growth and maintenance of those already formed.

First, then, it appears constantly true, that the reparative power is greater in all parts of the young than of the older of all species. Even when we compare individuals that have all attained their highest development and growth, this rule seems to be true. We know it from general observations of the results of similar injuries, and in persons of different ages: numerous as the exceptions may be, the general rule seems true. And it is yet more eminently true in the case of some lower animals. It seems certain that the capacity for the repair or reproduction of injured parts is much more diminished by development than by growth or maintenance of the body; in other words, to improve a part requires much more, and more perfect, formative power, than to increase it does.

If we may thus interpret the facts, they will be collateral evidence for the belief, that, in different species of animals, the reparative power will bear an inverse ratio to the amount of development already passed through; so that, for each species, in its perfect state, the reparative power might be measured by the degree of likeness between the embryonic and the perfect form, structure, and composition. The greater the sum of dissimilarities in all these respects between the embryo and the perfect animal, the less seems to be the reparative power in the latter. It is consistent with this that the highest amount of reparative power exists in these lowest polypes, in which the materials of the germ-mass yet remain, not transformed, but multiplied, and, as it were, grouped into the shape of their bodies. In the fresh water Hydra, the power of the germ appears communicated without loss to all the cells that descend by multiplication from the original germ-cells, provided only the cells are not developed into higher forms or into subserviency to special functions. In the *Hydra viridis* and *Hydra fusca* it seems literally true that any minute cluster of cells, derived by mere multiplication from those of the germ-mass, may, after being separated from the perfect body, reproduce the perfect form. This is the result of the numerous experiments performed on the Hydra by Trembley. He cut an Hydra into four pieces: each became a perfect Hydra; and while they were growing, he cut each of these four into two or three. These fractions of the quarters being on their way to become perfect, he again divided these, and thus he went on, till from the one Hydra he obtained fifty. All these became perfect; he kept many of them for more than two years, and they multiplied by their natural gemmation just as much as others that had never been divided. So that a division by fifty did not perceptibly diminish the power of the germ present in the polype that was thus subdivided. Again, he cut similar polypes longitudinally, and in an hour or less each half had rolled itself up, and seamed up its cut edges, so as to be a perfect Hydra. He split them into four,—he quartered them,—he cut them into as many pieces as he could, and nearly every piece became a perfect Hydra. He slit one into seven pieces, leaving them all connected by the tail, and the Hydra became seven-headed, and he saw all the heads eating at the same time. He cut off the seven heads, and hydra-like, they sprang forth again. But the heads of Lennæan Hydræ perished after excision: the heads of this Hydra grew for themselves bodies, and multiplied with as much vigor as their parent trunk. So in the Actiniæ, which, after bisection, form two perfect individuals,—and the Holothuriæ, which, as Sir J. G. Dalyell has observed, when touched will sometimes eject all their viscera, and yet in three or four months will have all their viscera reproduced. And so of the Anellata, the young Nereids, and species of Nais, on which Spallanzani and others made their experiments. I need not say how consistent all this is with the doctrine of parthenogenesis which my colleague has been explaining, where creatures are produced without previous impregnation of the parent. But I shall now notice some experiments made by Sir J. G. Dalyell, which carry us further in illustration,—facts which seem to show in these lower animals such a gradual approach to perfection as appears in the higher. In the repro-

duction of the Hydra Tuba he has found, that when cut in halves, each half may regain the perfect form; but this perfect form is regained only very slowly, and, as it were, by a gradual improvement of parts that are, at first, ill-formed.

Again, in the *Tubularia indivisa*, a specimen was cut near its root, and, after the natural fall of its head, the summit of its stem was cloven. An imperfect head was first produced, at right angles to the stem, from one portion of the cleft; after its fall, another and more nearly perfect one was regenerated, and, as it grew, improved yet more. A third appeared, and yet a fourth, which was yet more nearly perfect, though the stem was thick, and the tentacula imperfect. The cleft was almost healed; and now a fifth head was formed quite perfect; and after it, as perfectly, a sixth and seventh head.

The lower half of this specimen had been cut off four months after the separation of the stem. Its upper end bore—first, an abortive head; then, secondly, one which advanced further in development; a third, much better; and then, in succession, other four, which were all well formed.

The upper portion of this lower half of the stem now showing signs of decay, a portion was cut from its lower part, and further manifested the reproductive power of the stem; for three heads were produced from the upper end of the piece cut off, and four from the lower end of the upper piece which had seemed to be decaying. In 550 days this specimen had grown 22 heads.

Now, I cannot but think, that we have here the very type of what we have to watch in various diseases of the human frame, in which each of the replacing parts becomes more and more near to the character of the perfect individual.

The power of reconstructing a whole and perfect body, by the development of a fragment, is probably limited to the species that can propagate by spontaneous fission or gemmation, or that increase their size, as some of the Anellata do, by the successive addition of rings that are developed after the manner of gemmules from those that precede them. Where this power is not possessed, there, whatever be the position of the species in the animal scale, the reparative power appears to be limited to the reproduction of lost members,—as legs, claws, a part of the body, the head, an eye, the tail, and the like; yet, within this limit, the rule seems to hold good,—that the amount of reparative power is in an inverse ratio to that of the development through which the animal has passed in its way to the attainment of perfection. The experiments of Mr. Newport show, that, among the insects, the reparative power, in the complete state, is limited to the orders in which that state is attained by a comparatively simple and direct course of development, as the Myriapoda and Phasmidæ, and some of the Orthoptera. These can reproduce their antennæ, and their legs, after removal or mutilation; but their power of reproduction diminishes as their development increases, as in the Myriapoda, where such reparative power apparently ceases, when, after the last casting of their integuments, their development is completed.

In the higher hexapod insects, such an amount of reproductive power

has been seen in only the larval state,—none of them, in its perfect state, can reproduce an antenna, or any other member. This is the more remarkable, when the higher insects are compared with the Arachnida; and yet stronger when we compare the higher insects and the several species of salamander, in which so profuse a reproduction of the limbs has been observed. Many other instances appear to support the rule, that the reparative power in each perfect species is in an inverse proportion to the amount of change through which it has passed in its development from the embryonic to the perfect state, and that the power is the same by which perfection is first achieved, and by which, when lost, it is recovered.

This is, again, generally confirmed in the Vertebrata; but as I shall have to speak of this in future lectures, I will only say that, in the highest Vertebrata, and in man, a true reproduction after loss or injury, seems limited to three classes of parts:—

1. To those which are formed entirely by nutritive repetition.
2. To those which are of lowest organization, and of lowest chemical character.
3. To those which are inserted in other tissues as accessories, as connecting or incorporating them with the other structures of vegetative or animal life.

With these exceptions, injuries or losses in the human body are capable of no more than repair, in its more limited sense.

There are certain considerations which may excuse these references to facts in physiology in which, as surgeons, we may feel but little interest. If ever we are to escape from the obscurities and uncertainties of our art, it must be through the study of those highest laws of our science, which are expressed in the simplest terms in the lives of the lowest orders of creation. It was in the search after the mysteries of generation, that the first glance was gained of the largest truth in physiology—the truth of the development of ova through partition and multiplication of the embryo-cells. So may the study of the repair of injuries sustained by the lowest polypes lead us to the clearer knowledge of that law, in reliance upon which alone we dare to practice our Profession. Already we seem to have had the foreshadowings of the law through which the discovery may be made; and in watching these processes we only see the progress of the yet larger law which expresses our Maker's will for the recovery of all lost perfection. To this train of thought we are guided by the remembrance, that the healing of the body was ever chosen as the fittest emblem of his work whose true mission was to raise man's fallen spirit and repair the injuries he had sustained; and that once, the healing power was exerted in a manner purposely so confined as to advance, like that which we can trace, by progressive stages, to the complete cure. For there was one, upon whom, when the light of Heaven first fell, so imperfect was his vision, that he saw, confusedly, "men, as trees walking;" and then, by a second touch of the Divine hand, was "restored, and saw every man clearly." Thus guided by the brighter light of revelation, it may be our privilege, while we study the things of which I have been speaking, to gain, by the illustrations of analogy, a clearer insight into the oneness

of the plan by which things spiritual and corporeal are directed. Even now, we may trace some analogy between the acts of the body and those of man's intellectual and moral nature. As in the development of the germ, so in the history of the human spirit, we may discern a striving after perfection—after a perfection, not viewed in any present model (for the human model was marred almost as soon as it was formed,) but manifested to the enlightened reason in the “express image” of the “Father of Spirits.” And so, whenever, through human frailty, amid the violences of the world, and the remaining infection of our nature, the spirit loses aught of the perfection to which it was once admitted, still its implanted power is ever urgent to repair the loss. The same power, derived and still renewed from the same parent, working by the same appointed means, and to the same end, restores the fallen spirit to nearly the same perfection that it had before. Then, not unscarred, yet living—the spirit still feels its capacity for a higher life, and presses to its immortal destiny. Here the analogy ceases. We may watch the germ-power developing the body into all its marvellous perfection and exact fitness for the purpose of its existence in the world; but this purpose accomplished, it passes its meridian, and then we trace it through the gradual decay of life and death. But, for the human spirit that has passed the ordeal of the world, there is no such end. Emerging from its imprisonment in the body, it soars into the element of its higher life; there, in unchanging youth, its powers expand, as the vision of the Infinite unfolds before it; there, in the very presence of its Model, its Parent, and the Source of all its power, it is “like Him, for it sees him as He is.”—*Med. Times.*

PATHOLOGY AND PRACTICE OF MEDICINE.

On the Neck as a Medical Region, and on Hidden Seizures. By MARSHALL HALL, M. D., F. R. S., &c.—I confess I was a little surprised in perusing the following note and confirmation of the views which have been laid before the reader. It is at once apt and very original, and denotes great talent in the writer.

59 Burton-crescent, March 23. 1849.

DEAR SIR,—A few phenomena that have presented themselves, in a case in University College Hospital, during the last week or two, have so interested me, inasmuch as they bear upon your explanation of the second and third links in the chain of causes and effects, or symptoms of epilepsy, that I have taken the liberty of sending you an account of them.

A girl, nineteen years of age, was admitted (under Dr. Williams) for aphonia; and amongst other things in the treatment, she was ordered to have galvanism applied to the larynx, daily, by the electro-magnetic machine.

Whilst using this machine, I tried the effect upon the muscles of the neck, and observed, that when the wheel was turned slowly, and the superficial muscles were alternately contracted and relaxed, the color of the face was heightened, and was of a florid hue, and no unpleasant feelings (farther than those arising from the shocks) were experienced; but

when the wheel was turned rapidly, with a less powerful current, and the muscles were maintained, during the rapidly intermitting action, in a state of almost permanent contraction, the face became of a deeper color, the lips and angles of the mouth livid, the eyes suffused, and some feelings of confusion of thought, headach, and dimness of sight, alternating with flashing of light, were induced. The latter effects remained, after the cessation of the current, for a few minutes, and then disappeared.

I do not think that the treatment has, as yet, had any marked effect upon the aphonia; but the phenomena I have attempted to describe were interesting in their relation to the laws which you have established in your paper upon the 'Theory of Convulsive Diseases.'

I am, dear Sir, yours very respectfully, J. RUSSELL REYNOLDS.
To Dr. Marshall Hall.

This interesting fact suggests a series of experiments on the lower animals, which I trust Mr. Reynolds will perform.

Not less remarkable are the facts contained in the following detail:—

On the 26th of February last I was called to see a patient, a butcher, aged forty, with Mr. Woolmer and Mr. Wall. Some months previously he had been observed to be absent in mind, and he had complained of severe pain of the right temple, especially on first awaking, and on the 25th of January, he had fallen down in his shop, taken with apoplexy. On this attack he was bled to twenty-four ounces, with material relief both to the apoplectic symptoms and the pain, and this being followed by calomel and other appropriate remedies, the patient was enabled to resume his occupation, going early to market, &c. Unfortunately, he was induced to resume a full diet, and to take tonics, and the symptoms returned; the countenance became flushed, the pupils dilated, and the pain returned with coma.

On February the 26th, when I first saw him, the eyes were suffused, the pupils sluggish; there was constant pain of the right temple, and extreme slowness in answering questions, the pulse 50; no hemiplegia. Venesection was ordered in the *erect* posture to incipient syncope, with aperient and light mercurial medicine.

Feb. 27th.—Thirty ounces of blood were taken before the slightest appearance of syncope was observed; the bowels had been freely moved.

The symptoms were all mitigated, but not removed; the pulse 60.

He was ordered to be cupped on the nucha to four ounces, the other remedies being continued. A spirit lotion was applied to the head, sinapisms to the nucha, fomentations to the feet.

28th.—There were still the pain of the right temple, suffused conjunctiva, and sluggish pupil; and the answers to questions were slower than yesterday, though the pulse had risen to 66.

The remedies were continued.

March 1st.—As yesterday. He grew worse towards night, with labored breathing, and died about ten P. M.

On a post-mortem examination, the external jugulars were observed to be tumid and cord-like; on removing the upper part of the skull, the veins were found excessively distended. The surface of the hemispheres were flattened. In the right anterior lobe of the brain, there

were softening and slight discoloration, and a cavity communicating with the left ventricle, being distended with serum. The rest of the encephalon was healthy.

At this post-mortem, a brother of the deceased was present, himself a butcher, and he observed, in the most emphatic manner, "This appearance of the veins of the brain is precisely what we observe in the calf, if, after being struck with the pole-axe, we do not immediately proceed to stick the animal."

This is the singular fact to which I have alluded, and I took great pains to arrive at the precise truth in regard to it, both from the gentleman who first made the remark, and another person equally intelligent and well informed in the matter, to whom I submitted a series of questions. The facts, then, are these :

If a calf be struck with the pole-axe, and "stuck" *immediately*, the brain is found pale-colored. But if it be struck with the axe, and not immediately stuck, the veins of the brain, the spinal marrow, and the neck, become enlarged, and gorged with blood. The interval required to produce this effect being about five minutes. The *eye* becomes suffused and red, and the tongue and internal parts of the mouth become livid. The tongue is sometimes thrust out and bitten. The breathing becomes very noisy and stertorous. There are strabismus and convulsive action of the muscles of the *face*, and of the *limbs*. The bladder and the rectum are sometimes evacuated. There is, in a word, every symptom of epilepsy !

It is impossible, I imagine, to read a detail more replete with interest, and I leave it for the present to the meditation of my reader. A volume might be written upon it. I proceed to another topic, adding merely that, first, through irritation of the nerves of the meninges, or, secondly, through that of the medulla oblongata, trachelismus and its train of consequences are induced.

What would be the precise distribution of an injection thrown into the external jugular, the internal jugular, the vertebral, and the brachial, or axillary veins, singly and distinctly, respectively, in the human subject, as ascertained on a most careful dissection ? What would be the precise effects of tying the two internal jugular veins, and the two vertebral veins, in distinct experiments in different animals ? And what inferences might be legitimately drawn from such an inquiry ? That the *accurate* pathology of phlebismus ; or of interrupted circulation in the veins of the neck, is still to be ascertained, is indubitable. The effects of trachelismus observed in the apoplectic or epileptic seizure, of whatever degree, and in the case of strangulation, or of compression of the veins, however made, are too complicated to lead to any accurate and definite conclusion.

The anatomy, the physiology, and the pathology of the neck, present objects for new and important research. But the first step in the inquiry is taken when we first perceive and appreciate its value.

Two objects will principally occupy us in the present paper—the two principal causes of affection of the *circulation* in the encephalon and, in the enrachidion, if I may use that term, are—1, *Inflammation*, and 2, *Congestion*.

Everything leads to the conclusion, that inflammation consists in in-

interrupted flow of blood in the blood-channels situated intermediately between the minute branches of the arteries and the minute roots of the veins, and its effects. Congestion consists in the interrupted flow of blood along the veins. The former probably depends on an altered physical condition of the internal surface of the blood channels; the latter on compression of the venous trunks. There may be a point in which these two effects unite, in the latter case, when congestion may actually pass into inflammation. A diagram would best illustrate these two conditions.

The causes of inflammation act either immediately on the blood-channels, or through the medium of the *ganglionic system*; the causes of congestion, chiefly emotion and excitants of reflex action, act through the medium of the *spinal system*.

I have thus treated of the *theory* of these affections; I now add a most important remark, bearing upon *practice*.

It sometimes occurs that in the first instance, or in the midst of an apparent amendment, in diseases of the nervous system, a sudden retrograde change is experienced, for which no cause can be assigned.

I have reason to believe that in such cases some paroxysmal affection has occurred in the night, or in the day, unobserved.

This fact, if established by careful observation, will raise the veil from many a mysterious event, and probably lighten the blame which the ignorant are so ready to throw upon the physician, who, forsooth, in such cases of difficulty and danger, is rendered responsible for every untoward event, when he has, in reality, no more power to control them than the astronomer has to control the course of the stars.

A passing emotion may induce trachelismus; this in its turn, phlebis-mus; and this, the condition of the nervous centres, which, remaining after the attack itself is over, is the cause—perhaps the hidden cause—of the origin, relapse, or augmented malady of the patient.

If this conjecture be just, how careful ought our researches and inquiries to be pursued on such occasions! The pillow, the tongue, the shirt, and the sheet, should be carefully examined; and suffusion of the eye, the pallor, flushing, or lividity of the countenance, should not be overlooked. Frequently the only evidence of an epileptic seizure having occurred during the night, is a wounded tongue or aching limbs.

But the seizure may be so slight as only to leave some such cerebral symptom, as confusion of intellect, or forgetfulness, or augmented excitability—events, the occurrence of which, however, it serves to explain.

These hidden seizures, occurring in the night, or in the absence of witnesses, as they are the cause of many cerebral and spinal symptoms, enable us to explain many occurrences which would remain enigmatical and mysterious. I cannot recommend the subject too earnestly for new investigation. Severe, attacks, whether apoplectic or epileptic, unfortunately present no difficulty in the diagnosis.

Perhaps I ought to apologize for the fragmentary character of these papers. I leave the *arrangement* of the subject for a later period of the investigation. In my next paper, I shall treat of a *cardiac* form of these affections: the medulla oblongata first, and then the heart, are affected with shock, and there is a *syncopal* paroxysm.—*London Lancet*.